RESULTS

OF

OBSERVATIONS OF THE FIXED STARS

MADE WITH THE

MERIDIAN CIRCLE

AT THE

GOVERNMENT OBSERVATORY, MADRAS,

IN THE YEARS

1862, 1863 AND 1864,

UNDER THE DIRECTION OF

NORMAN ROBERT POGSON,

C I E, F R A S, & F M U

GOVERNMENT ASTRONOMER AT MADRAS

PUBLISHED BY ORDER OF THE GOVERNMENT OF MADRAS

MADRAS

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1887

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To

THE RIGHT HON'BLE SIR MOUNTSTUART ELPHINSTONE GRANT DUFF,

LATE GOVERNOR OF MADRAS, G C S I, C I E, F R S, M A, &c, &c

HONORABLE SIR,

The present volume, the first of a new series of Madras Observations, was intended to have been issued long before your retirement from the high and distinguished office of Governor of Madras, and was by your kind permission to be specially dedicated to you, whose discerning, enlightened and liberal views in regard to the encouragement of science, alone enabled me to commence publication, by the removal of certain arbitrary and suppressive restrictions which have prevented me and my predecessors from attempting anything of the kind for considerably more than thirty years past

Without prompt publication of results, scientific researches in general, and above all astronomical observations, are comparatively useless I came to India deeply impressed with this view, and with the full intention of bringing out an annual volume, and now that you Sir have rendered this possible, and I have every reason to feel assured that your successors in office will continue the valued privilege which you first saw fit to concede to the Madras Astronomer, *viz*, the right of distribution of his publications, enjoyed by every other astronomer in the world but so long disallowed at Madras, the one Observatory of India will, I hope, speedily recover its prestige and remain an enduring evidence of one of the many benefits conferred upon Southern India, during your regime as Her Majesty's representative at Madras

With grateful recollections of past kindness and best wishes for your health, happiness and future well earned distinctions,

I remain, Honorable Sir,

Your most obedient Servant,

N R POGSON

INTRODUCTION

Meridional observations were commenced at the Madras Observatory on January 9th, 1793, with a little twenty inch transit instrument, by Stancliff, and a twelve inch altitude and azimuth instrument, by Troughton, neither of them bearing an object glass of so much as an inch and a half in aperture With these diminutive appliances the work of the Observatory was carried on until the year 1829 The records of the first nineteen years were simply copied out and transmitted to the Honorable Board of Directors of the East India Company Those from 1812 to 1825 were published in two bulky folio volumes, but consisted only of unreduced observations of the Sun, Moon, old planets and brighter fixed stars These two volumes were published by the Honorable Company's Astronomer, Mr J D Goldingham, as Volumes 3rd and 4th, with a view to the previous records being subsequently printed, an arrangement which however was never carried out

An important step in the history of the Observatory was made in the year 1830, when a five foot Transit Instrument and a four foot Mural Circle, both by Dollond, with object glasses of nearly four inches aperture, were erected under the superintendence of Mr T G Taylor, one of the most able and energetic astronomers of his day With these instruments, the celebrated "*Madras Catalogue*," containing positions of 11,015 stars reduced to the Epoch 1835, was accomplished between the years 1831 and 1843, and in spite of its weakest points, large instrumental errors of an unexpected nature in the Mural Circle, which Mr Taylor did his best to eliminate before printing his final catalogue, its value at the present date may be inferred from the circumstance of a new edition being now called for by European astronomers It is scarcely necessary to mention that I shall respond to this call with great pleasure as soon as the results of my own labors have been laid before the world, and time permits of the investigation of the remaining errors, both casual and systematic, which still require correcting in the former catalogue The addition of the mean dates of observation in each co ordinate, which will of course entail reference to every individual observation upon which the final star positions are based, is also a matter of such importance that there could be no excuse for its omission in case of a second edition of the Catalogue.

The Transit Instrument and Mural Circle were next employed, between 1849 and 1852, in the revision of 1440 stars of the British Association Catalogue, under the direction of Captain W S Jacob, Bombay Engineers, the results being published in Vol VIII of the second series of Madras Observations

A considerable number of star observations, made with the same instruments between 1853 and 1858, under the superintendence of Captain Jacob and of Major W K Worster, Madras Artillery, but only partially reduced to apparent places, will, when completed, form another catalogue of about 2,200 stars, for the epoch 1855 A selection of 317 of these stars, suspected of large proper motion, was printed in the "*Memoirs of the Royal Astronomical Society*", Vol XXVIII

There are also 1,331 observations of the Sun, 345 of the Moon, 1,680 of the principal planets and 333 of various minor planets, made with the old instruments during the same years, in continuation of those given in Volume 7 of the "*Madras Astronomical Observations*" awaiting publication

It is now about forty years since the Astronomer Royal (then Prof G B Airy) introduced a most important change in regard to meridian instruments, by suggesting a Transit Circle for the Royal Observatory in place of the two separate instruments hitherto employed for determining the absolute Right Ascensions and Polar Distances of celestial objects at Greenwich The advantages of having both co ordinates observed at the same time and by the same person, are so obvious, that it is surprising the old practice was so long endured by astronomers The Royal Observatory was supplied with a magnificent Transit Circle in 1850, which was brought into use the following year, the object glass of its telescope being eight inches and its divided circle six feet in diameter A fac simile of the Greenwich instrument, subsequently supplied to the Cape Observatory, was first used there in 1855 Meanwhile however, in 1852, Mr R C Carrington of Redhill, had a Transit Circle constructed for him by Messrs Troughton and Simms, similar in all essential points to the new one at Greenwich, and divided by the same exquisite machinery, but with a five-inch object glass and a forty two inch circle instead of the much larger and more costly size adopted at the Royal Observatory When no longer required at the Redhill Observatory this fine instrument was removed to the Radcliffe Observatory, at Oxford, in 1861, and has been used there ever since

In the year 1855, by the liberality of the Board of Directors of the Honorable East India Company, a new Transit Circle, similar to Mr Carrington's, was ordered of Messrs Troughton and Simms, upon the recommendation of Captain Jacob The general superintendence of its construction was kindly undertaken by Mr Carrington, who, in consultation with its able makers, advised such alterations in its various details as the experience of his own instrument had led him to consider advisable The Transit Circle reached Madras in March, 1858, only a month before Captain Jacob's departure, and although orders were immediately issued for its erection, unforeseen difficulties and above all frequent changes in the direction of the Observatory, prevented it from being ready for use until four years after its arrival

Similar instruments have since been supplied by the same eminent firm to Melbourne, Sidney and many other observatories, both public and private, at home and abroad The description already given of any one of these instruments is so nearly applicable to all the others that the following brief details of the Madras Transit Circle may seem to many supererogatory, especially as the instrument has now been in constant use for nearly a quarter of a century

BUILDINGS

These consist of two blocks,—one comprising the old Observatory with its more recent additions, a long, low, narrow structure, extending 196 feet from East to West, by 25 from North to South, the other, the residence of the Astronomer, facing south east, about 120 yards south west of the former, and covering a space of 75 by 50 feet The original Observatory, built in 1792, consisted of a single room, 40 feet long by 20 broad and 15 high inside, with massive walls, over two feet in thickness The floor rests on beams supported entirely by the walls and detached from the instrumental basement, which consists of a solid pyramidal mass of masonry, 37 feet long by 6 feet wide at its upper surface, 6 feet in depth, and 45 feet long by 12 feet broad below, probably little less firm or massive than a solid rock of similar dimensions A conical granite pier rests on the centre of this mass, 4 feet in diameter at its base, tapering up to 2 feet at its total height of 18 feet, and weighing certainly over ten tons This was the pier originally provided for the little 12 inch alt-azimuth by Troughton, while the small Transit by Stancliffe and the Transit clock, both rested on granite supports

each weighing about 2½ tons When Mr Taylor replaced the small instruments by the Dollond Transit and the Mural Circle in 1830, they were fixed on stone piers, the former as far east and the latter as far (to the) west as the basement would allow, on opposite sides of the great central conical frustum, which was retained in position as a huge counterpoise, though no longer used as a support for any instrument

The present Meridian Circle occupies the same position as Mr Taylor's Transit instrument, looking through the same slits in the roof and walls, which have however been made 22 inches wide instead of only 15 as formerly Two brick piers were first erected for its reception, but these were condemned by Major Worster, in January 1859, and were replaced by excellent granite ones, under Major Tennant's superintendence, in 1860 Each of these piers measures 4½ feet by 2 and rises 4 feet above the floor of the room Four composition blocks, each 4¼ feet long by 2 wide and 2 feet 2 inches high, were sent out with the new instrument from England, and on two of these, surmounting the granite base piers, rests the Meridian Circle, with its pivot centres 6 feet 2 inches from the floor The other two composition blocks or cap stones support the counterpoise arrangements and raise the piers to a total height of 8 feet 4 inches The clear space between the piers for the observer is 39 inches

Want of proper instructions, or possibly the loss of such if sent, in regard to the cap stones, caused much difficulty and delay in the erection of the instrument, as if placed in position as they were sent out, the pivots would have been built into two 12-inch square holes, inaccesible even for cleaning and oiling, while the instrument could never have been lifted so much as six inches out of its bearings, whatever alterations or repairs might at any time become necessary Two slices of 9½ inches thickness were accordingly cut out of the middle of each cap stone and these were afterwards found very useful in overcoming another difficulty of construction which will be described further on

About the year 1845, when the Magnetical Establishment was removed to the Observatory, the old transit room received considerable extensions, rendered necessary for the accommodation of the additional instruments and assistants transferred to the care of the Government Astronomer Eastward was added, first, a covered passage, 20 feet long by 8 broad, leading to the Dip circle room, which measured 16 feet by 26 feet, next a magnetic room,

45 feet by 15 feet, in which the Bifilar, Vertical Force and Declination Magnetometers were placed and read hourly up to March 1861, and third, a small Transit-theodolite room, 16 feet by 12 feet, used in connection with the Declination Magnetometer and as a computing room for the head magnetical Assistant About 30 feet more eastward stands a small detached room, 22½ feet by 15 feet, used only for periodical determinations of the absolute Horizontal Force, by means of the usual deflexion apparatus supplied to all the magnetical observatories started upon the recommendation of the Royal Society in the year 1841

Westward of the old transit room were added two small rooms, each 20 feet by 15 feet, the first being used as a computing and manuscript room and the other as a store room for instruments and other property not in actual use

In the year 1872 three additional rooms for celestial photography were hurriedly run up on the roof over the Transit Circle room, just in time to secure photographs of the annular eclipse of the Sun on June 6th of that year The fine silver glass nine inch reflector by John Browning, used by Colonel J F Tennant, at Guntoor, on the occasion of the total solar eclipse on August 18th, 1868, having been altered, repaired and sent to Madras by the advice of the Astronomer Royal in 1871, for use at Avenashi in the Coimbatore District, during the next total eclipse which India was privileged to witness on December 12th, 1871, was afterwards brought to Madras and mounted upon the large granite conical pier before mentioned, a room, 21 feet by 15 feet, being built to enclose it A flat sliding shutter was provided, which when rolled off westward, left a square opening of 10 feet, giving the reflector a fair command of the sky except near the horizon where it was never likely to be used for photographic purposes Two small rooms adjoining, one dark for developing and the other for printing and other purposes, were also prepared in time for the annular eclipse in 1872 Very complete and convenient arrangements for securing celestial photographs were made, ostensibly with a view to the approaching Transit of Venus, on December 8th, 1874, and the Browning reflector was in readiness for that important event, but unfortunately cloudy weather prevented any photographs from being taken and the telescope was dismounted and sent to Calcutta, in compliance with orders from the Government of India, in February 1875

A small portable equatorial, with a 3½-inch object glass by Dollond, has since been placed in the reflector-room and is occasionally used for casual

phenomena, such as eclipses or occultations, but all photographic operations were of course stopped by the removal of the reflector The recent wonderful advances in celestial photography may render the renovation and equipment of this part of the observatory a very important step in regard to observations in the near future

The house, originally provided for the Astronomer's use only, is a still older and more substantial building than the Observatory proper already described, and much of it is now given up for purely official purposes It contains in all eighteen rooms, eight on the ground floor, seven on the first floor and three on the roof The ever increasing and already valuable and extensive Library occupies two rooms on the ground floor, and in these also are placed the electrical clock and telegraphic appliances used for giving true time to the local shipping and generally to all parts of India A granite step of the north east door of the Library is a bench mark of the G T Survey of India and is 22 feet above mean sea level The private office of the Astronomer is immediately over the Library, and on the roof are, a small Anemograph room, 10½ feet square, a 16 foot circular room with an excellent revolving dome, containing a fine eight inch Equatorial by Messrs Troughton and Simms, and another, slightly smaller but similar room, for the six inch Equatorial by Messrs Lerebours and Secretan, formerly used to such good purpose by Captain Jacob in measurements of double stars and of Saturn's satellites

Photographs or drawings of the buildings and of the chief instruments were intended to have been given in this volume, but are unavoidably deferred for the present

THE MERIDIAN CIRCLE

This fine instrument, as already stated, was made by Messrs Troughton and Simms, in consultation with the late Mr R C Carrington, and its general excellence has proved most satisfactory The clear aperture of the object glass is 5½ inches and its focal length about 50 inches, the magnifying powers of the eye pieces being very nearly as engraved on each, *viz*, 105, 147 and 230 The middle power has been used throughout A Bohnenberger's eye piece, power 106, was also supplied for determinations of the nadir point and level error

The horizontal axis consists of a central 12 inch cube and two cones,

each ten inches in diameter at the cube and in one casting of gun-metal therewith, bearing at their extremities the pivots, also of gun metal, which are 3 inches in diameter and rest in brass Y's, adjustable vertically only by screw-motion, any change in azimuth requiring the forcible bodily movement of the east pivot support by means of double wedges, but such adjustment has only been once needed since the instrument was finally mounted in 1862 The pivots and Y's are so well boxed in with close fitting brass covers that dust and moisture are effectually excluded

The two ends of the telescope are each screwed to the cube by twelve stout bolts There are two nearly similar gun metal 42 inch circles, each firmly secured by means of eight screws to truly faced flanges, attached to the conical axes on opposite sides of the cube The clear space between the two circles is just 30 inches The eastern circle is coarsely divided, to 10′ only, for setting, and is also intended as a handle for turning the instrument round It is clipped by two clamps, with slow motions and tangent rods, which have generally been used for making bisections in preference to the micrometer of the eyepiece, ever a fruitful source of error in polar distance determinations The western circle carries a rim of gold, inclined at a level of about 12° to the plane of the circle to facilitate reading and illumination, and is divided with Messrs Troughton and Simm's well known precision into 5′ spaces The divisions are read off by six microscopes of very considerable magnifying power, so placed as to bring their micrometer eyepieces within a circle of 30 inches diameter and for the lower microscope to read zenith-distances Each microscope micrometer screw moves a pair of close parallel wires, the nearest division of the limb being brought midway between them instead of being bisected by cross wires The divided circle is enclosed in a light open work box to shield it from accidental injury by the observer

The greatest source of delay and difficulty in mounting the instrument was in regard to the fixing of the six microscopes It was (obviously) intended that they should be placed as they now are, for the lower one to read zenith distances, and the hole for it to look through was drilled in the lower part of the western pier in readiness This however caused the upper microscope, in the cap stone above, to come immediately above the flame of an argand lamp, provided for lighting up the field of view, or the wires in a dark field, and for the general illumination of the limb opposite to each microscope It was soon found that the much smaller flame of a thin flat wick gave ample illumination for the limb and also for the wires in a bright field, though not

sufficient for the satisfactory use of bright wires in a dark field With one of the slices cut out of the cap stones, as mentioned on page vi, a conical frustum, of 24 inches base and 19 at its face, was attached to the western pier, projecting 6 inches from it, and with a continuation of the 12-inch square space left for the pivot supports, through its centre By placing a small lamp therein, with a bent chimney to carry off all smoke and as much heat as possible, the difficulty was at last overcome, certainly not as arranged by Messrs Troughton and Simms but quite effectual for the purpose The conical projection lies between the micrometers, serving as a protection to them against possible injury, but is neither in the way nor in the least unsightly, and no one seeing the instrument for the first time would imagine for a moment that it was any addition to or departure from the original design The light of the small lamp is guided and condensed by a frame of seven lenses, a large central one for illuminating the field, and six smaller ones for distributing it where required upon the divided limb under each microscope

Two pairs of brass arcs had been provided for the support of the other four microscopes, one pair for the eyepieces and micrometers on the outside western face of the pier, and a larger pair, to bear the objectives on its eastern or inner side, apertures being also left in the composition stones for the long tubes connecting the eyepieces and their objectives, but in order to fix the upper microscope after cutting out a $9\frac{1}{2}$ inch slice just where it had to come, two more similar metal arcs had to be cast and made up here Considering the difficulty of getting anything of the kind done in Madras in those times, it would have been much better for Messrs Troughton and Simms to have sent out a skilled mechanic to assist in the erection of the instrument, but it fortunately happened, that in September, 1861, a German Mathematical Instrument maker, the late Mr F Doderet, was sent out by the Right Honorable, the Secretary of State for India, to start workshops for the repair of levels, theodolites, &c, for the Public Works Department, and as no place, plant or assistants were prepared for him, I was readily granted the benefit of his services for six months Major Tennant, when in charge of the Observatory had purchased for Government an excellent lathe, by Holtzaffel, and with it and a supply of other tools from the Arsenal, we set vigorously to work and got the Transit usable for time determinations by the end of the year, and all the modifications required in the microscope arrangements finished in May 1862, when complete observations were first steadily commenced

Heavy counterpoises, with their fulcra resting on inch thick iron plates, crossing the cap stones, relieve the Y's of most of the weight of the instrument, by means of two pair of 5 inch friction rollers, applied to grooves on the axis between the circles and pivots, small additional weights sufficing to lift it out of its bearing for cleaning and oiling The residual pressure of the pivots upon each Y is about 10 or 12 lbs

A finder, 15 inches in length and $1\frac{1}{2}$ in aperture was added to the telescope, presumably for estimating the magnitudes of the brighter stars but its utility for that or any other purpose is very questionable

The telescope eyepiece was provided with a system of seven vertical and one horizontal spider lines, moveable each way by micrometer screws of practically the same thread The single horizontal line was replaced by a close pair, about 12″ apart, and bisections have throughout been made by bringing stars exactly midway between the two when crossing the centre vertical wire For observations of Mars especially, the estimated equality of the segments above and below, was unquestionably better than tangential contacts of a single line with either north or south limb

For collimating, two 35 inch telescopes with $2\frac{3}{4}$ inch object glasses, are mounted on piers, level with the centre of the Transit circle, inside the room, and at a distance of 57 inches from the object glass of the instrument when turned to either the north or south horizon The central cube is pierced by two 4 inch circular apertures, so that the wires in each collimator can be seen through the other when the circle reads 180° The south collimator micrometer moves horizontally, for fixing an approximate meridian line, and the north one vertically, so as to give a nearly horizontal line for flexure determinations Having only native assistants for observers and considering therefore that extreme simplicity would ensure the safest results, I did not adopt the Greenwich pattern of wires, but preferred simple crosses, that in the north collimator being arranged as in the sign × and that in the south collimator as a +, which I thought better suited to those who had to use them

Upon my arrival at Madras I found the collimators placed outside the Observatory in small square detached rooms, twenty feet further from the Transit circle than they now are This was far more convenient as regarded space inside, and would have permitted of reflexion observations being taken much lower, had such been possible and urgently desirable, but I soon

found upon trial, that the passage of the visual rays through three strata of air of very unequal temperatures, caused the wires to appear so faint and tremulous that I gladly removed the collimators inside the Observatory, as Mr Carrington's were placed at Redhill, and the result was all that could be expected or desired

A convenient transit observing seat runs on six rollers, between the circle piers, from one collimator pier to the other, and on the instrumental basement, a foot below the boarded floor, in which are five hinged trap doors, is a railway for two moveable reflexion troughs, besides a fixed circular one, vertically below the centre of the Transit circle, for use with the Bohnenberger eyepiece, for nadir point and level error determinations

CLOCKS AND CHRONOGRAPH

One of those rare and matchless old clocks, by Shelton, with a gridiron pendulum the compensation of which as nearly approaches perfection as possible, was found in India when the Observatory was first started in 1792, and is to this day by far the steadiest timekeeper in the place It was used as the transit clock till 1859, when it was replaced by a new one by Dent, with a mercurial pendulum, of the best modern construction, but certainly no improvement upon the old one except in its far louder and more convenient beat Some of the mercury was accidentally spilt in setting up the new clock and though more was added to replace the missing quantity, its compensation has never yet been so satisfactory as that of the old Shelton, which has since been used with the principal Equatoreal The performance of the Dent transit clock has, however, been good throughout and no better could be desired as a standard sidereal regulator

A curious old clock, by Haswall, used by Mr Goldingham in his pendulum experiments in 1821, with a mainspring instead of a weight and a very peculiar double escapement, was formerly used with the old mural circle and was most capricious in its daily rate The escapement being simplified and the spring exchanged for a barrel and weight, it has been used with the smaller equatoreal since 1866, and has worked better, though never comparable to the two first named

An excellent mean time electrical clock by Shepherd & Son, was supplied to the Observatory in 1872, and though severely criticized when under trial at the India Store Department for instruments, at Lambeth, it has worked well

enough at Madras It transmits hourly currents, by which a time gun at Fort St George, about three miles distant, is fired at noon and 8 p m, and a semaphore at the Marine Office, a mile further, is dropped at 8 a m and 2 p m, with as few failures as are usually made in time signals elsewhere It also passes alternately positive and negative currents, second by second, for the control of sympathetic clocks, one of which has been going at the Marine Office since 1879, as fairly as could be expected considering its very indifferent treatment ever since it was set up When first received at Madras, the Shepherd clock had a magnetic contrivance for the daily rectification of its small error, as necessary in all electrical motor clocks, and this was undoubtedly the source of dissatisfaction when on its trial in London, as until it was discarded nothing could be done with the clock here As soon however as a simple gravitation adjustment was substituted, consisting of a small brass weight of 150 grains, which when placed upon a shelf about 18 inches below the point of suspension of the pendulum makes the clock gain a hundredth of a second per minute, or lose at the same rate when placed on another shelf below the pendulum jar, all irregularities ceased and no further difficulty was experienced

Application was made for a chronograph in 1863, chiefly with a view to carrying out telegraphic longitude operations, and for observations of Mars in opposition for investigation of the constant of solar parallax A barrel chronograph was specified as being the only kind desired, the time marks being read off with so much more certainty, speed and convenience when in parallel rows on a single sheet than from many yards of a thin paper tape or fillet My application received no reply at the time, but several years later a French fillet recorder was sent out, too late for the special purposes for which it was wanted and quite unsuitable, even if it had been supplied when asked for

OBJECTS SELECTED FOR OBSERVATION WITH THE TRANSIT CIRCLE

The objects selected for observation with the new Meridian-circle were, the brighter stars inclusive, down to the 5th magnitude, the moon and moon culminating stars given in the Nautical Almanac, Mars and the stars observed with him at successive oppositions, on the meridian, as well as those used east and west, with the Equatorial, for parallax investigations, minor planets in opposition, if not under the 10th magnitude, comparison stars used for differential observations of comets and planets from 1861, all known

variable stars, zero stars for maps of those objects in hand, and as many others, not below the 9th magnitude, as time would permit, between 130° and 150° Polar Distance, as determining stars for the zones of the Southern Survey, in extension of the late Prof Argelander's great Northern Survey, which, with that distinguished astronomer's warm approval and advice I had intended to make my chief personal labor at Madras The very extraordinary opposition met with to this work, from a quarter whence such was least expected, partitioning out in portions to other observatories the work I had undertaken as a whole, compelled me to abandon any participation in its accomplishment at the end of 1863, after it had been fairly commenced in that year

The refusal of European assistance, after I had been authorized to apply to Prof Argelander and Mr Hind to suggest for appointment any well qualified young astronomer either of them might know of as available, was a death blow to the too ambitious programme I had undertaken and an unfore seen justification for my renunciation of the Southern Survey The local Government and its distinguished chief, Sir W Denison R E, had warmly supported my plea for a German or English assistant, and were so well assured of its being granted, that the plan and estimate for separate quarters in the Observatory grounds, for the accommodation of a Deputy Astronomer, were sanctioned and the foundations actually laid out, before the refusal of the promised help was received from the India Office in London My intention was to have only a small catalogue of stars observed by the native assistants with the Meridian Circle, pending completion of the first few maps of the Southern Survey, and as soon as the approximate catalogues, similar to those of the Bonn "*Durchmusterung*" were available, to have all the stars they contained observed in zones with the new instrument, just as the "*Durchmusterung*" itself has been since dealt with by the northern observatories

Finding that the Meridian circle must be used by native observers only, who though good for the slow methodical processes of ordinary meridian observations, could never be entrusted with the more arduous work of zoning, the best course was to increase the former observing list by the addition of as many anonymous stars of more than 120° Polar Distance as could be found, not less than the 8th magnitude No star was to be observed on less than five nights and all objects of more than ordinary interest on at least ten nights, and this has been adhered to throughout, wherever possible

OBSERVATIONS

Observations with the Meridian Circle, the results only of which are given in this volume, were almost entirely made by three native assistants, who were as fair observers as could probably be found of their class The first Assistant, C Sashoo Iyengar, was scrupulously careful and accurate and was warmly commended by every Astronomer, from 1837 up to the time of his death, in March, 1863 He was succeeded by C Ragoonatha Chary, whose better mathematical attainments and general aptitude for science, justified me and my friend, Mr E B Powell, then Director of Public Instruction, and one of the greatest authorities upon the subject of Double Stars, in recommending him for the honor of election as a Fellow of the Royal Astronomical Society The other native assistant who took part in the meridian observations was T Moottoosawmy Pillay, also a very trusty, painstaking man All three had used the old meridian instruments, but it was not until after more than a year's practice with the new Transit circle that I dare trust them to determine all their own instrumental corrections in the ordinary course of the night observations, though decidedly convinced that it is far better to do so than to make special determinations and interpolate for the required dates, however steady the corrections may be There were such evident personalities between them, that from the first I made each assistant find his own corrections, nearly always being present, until I became assured that it would be safe to entrust them with such manipulations alone The corrections for index and run of the microscopes micrometers were, from the first, found at night, but those for inclination and collimation in the day time, until September 1863 Due allowance being made for diurnal aberration, the right ascension micrometer was set to the corrected reading for no collimation, and until April 1863, when the use of the polar distance micrometer was first considered prudent, bisections were made with the tangent rods and slow motions of the clamps Even then it proved a very questionable step and was a fruitful source of error long after its introduction

Observations were entered, in pencil, in convenient recording books as they were made The standard barometer, by Newman, supplied by the Royal Society in 1841, and one of two thermometers, verified at Kew, were recorded for refraction reductions, the one used being at either a north or south window, according to the direction of the wind at the time of observation

REDUCTION OF THE OBSERVATIONS

These were carried out in folio day books The originals were bound for preservation in the Observatory, but as in the tropics it seems impossible to ensure that for long, copies were made for safer deposit in England, where they may be readily available for reference whenever desirable

The arrangement of the day books is as follows —

Left side —Polar Distance 12 columns

1 —Reference Number
2 —Date and Observer
3 —Barometer
4 —Thermometer
5 —Name of Object
6 —Deduced Circle Reading —*i e* — zenith distance counted round through south nadir and north up to 360°, the means of the six microscopes, corrected for index, run of micrometers, and curvature if not observed at the centre of the field
7 —Refractions, computed by *"Bessel's Tables"* as modified and expanded in an appendix to the Greenwich Observations for 1853
8 —Apparent Polar Distance, assuming the latitude as given in the Nautical Almanac, *viz*, 13° 4 8″ 1 north
9 —Reductions to January 1st, using the "Day Numbers" of the Nautical Almanac, and constants calculated for every star not in the N A list for the year
10 —Mean Polar Distances of Stars
11 —Apparent Polar Distance by Ephemeris
12 Correction to Ephemeris

Right side —Right Ascension 17 columns

1 —Reference Number
2 —Name of Object
3 —Number of Wires
4 —Estimated Magnitudes
5 —Mean of Wires —the clock time of transit over the mean of the seven wires being meant in all cases, and every object observed over a less number being reduced thereto by the adopted intervals of the wires noted
6 —Inclination correction
7 —Collimation correction
8 —Meridian correction
9 —Personal equation of Observer
10 —Sum of columns 6, 7, 8 and 9
11 —Corrected clock time of transit
12 —Clock correction applied
13 —Apparent Right Ascension
14 —Reduction to January 1st, calculated as in column 9 of the Polar Distance page
15 —Mean Right Ascensions of Stars
16 —Apparent Right Ascension by Ephemeris
17 —Correction to Clock or Ephemeris

The contents of the Observing or Recording books and of the Reduction or Day books are now rarely published except at national Observatories, colonial and private Observatories seldom having either the staff or the funds required for printing such voluminous details, of questionable interest or utility to those who only desire results

The horizontal wires were most carefully adjusted, so that a star brought exactly between them upon entering the field of view was satisfactorily so when quitting it at the opposite side and no correction was therefore required for the very few cases in which a star was not bisected close to the middle transit wire

The value of one revolution of the Polar Distance micrometer, found by bisecting the cross of the north collimator with the close horizontal wires at different settings of the micrometer and reading off the Circle, was 26″ 33 Measured by means of coincidences between the wires and their reflected image, it was 26″ 37 The mean value, 26″ 35 was adopted

The value of one revolution of the Right Ascension micrometer, found in a similar manner, after turning the eyepiece end through 90°, until the close horizontal wires were in a vertical line and then reading off the Circle when the centre wire was made to bisect the cross of the north collimator at various readings, was 26″ 66 = 1 771 seconds of time

The intervals of the seven wires from their mean, determined by twelve complete transits of polar stars in 1862, were as follows —

$+36^s\,979 \quad +24^s\,705 \quad +12^s\,351 \quad +0^s\,109 \quad -12^s\,348 \quad -24^s\,697 \quad -37^s\,098$

The Madras factors for inclination and meridian corrections were found by the following formulæ, the Polar Distance being considered negative for below pole factors

Inclination factor = +0 974 + (9 35435) cotan Polar Distance

Meridian factor = +0 226 − (9 98861) cotan Polar Distance

The correction for diurnal ~~observ~~ aberr ation at Madras being $0^s\,020$, for the centre wire + $0^s\,109$, and the zero of collimation having been found by taking the mean of the R A micrometer readings of the centre wire, when bisecting the crosses in the north and south collimators, after they had been adjusted upon each other, we have for any other reading of the R A micrometer

Collimation correction = 1^s 771 (zero of coll − adopted reading − 0 073)

The reading of coincidence of the centre wire with its reflected image in mercury being taken, we have also,

Inclination correction = 1^s 771 (zero of coll − coincidence reading)

The small altitude of the pole at Madras renders the observation of stars often impossible at their lower transit Weather permitting, the Meridian-correction was found by a pair of polar stars, but frequently of necessity from one only, combined with a south star, when of course no other use was made of the observation, beyond that of furnishing the correction for the night The correction was interpolated when not otherwise determinable

Personal equations were merely used for the convenience of avoiding changes in the local time, for the public signals, as different observers came on duty The watches usually extended over half a month and the clock errors were never mixed Upon several occasions, when the instrument was in use only as a Transit, before the Circle arrangements were completed, I observed a number of clock stars intermediate between those of the native assistants, and from comparisons thus obtained, it appeared that they all required negative corrections to their recorded times relatively to my own The numbers adopted were, for Sashoo $-0^s\ 75$, for Ragoonatha $-0^s\ 35$, and for Moottoosawmy $-0^s\ 23$ I afterwards found that similar differences in the habits of bisection existed between the native observers and myself, rendering it equally necessary for each one to determine his own corrections for Index and Run, and causing apparent changes in the corrections certainly not due to the instrument, as may be readily seen in the following tables of adopted "*Instrumental Corrections*", where the numbers enclosed in brackets are the determinations of different observers on the same night

The Nautical Almanac positions of Standard stars were used entirely for finding the clock corrections, a few being rejected for the purpose, especially Sirius and 61 Cygni Whatever corrections are due to the Nautical Almanac stars will therefore affect the Madras Right Ascension throughout

For the determination of the Meridian corrections, as well as with a view to securing data for correction of the assumed latitude, the positions of a number of the brighter stars in the "*Catalogue of* 164 *Stars within* 6° *of the North Pole*", given in Vol XVI of the "*Radcliffe Observations*" were employed I preferred using the positions given therein to those of the "*Radcliffe Catalogue of Stars for* 1845", as they were entirely my own bringing up, under the supervision of my esteemed chief Mr Johnson, then Radcliffe

Observer, who was ever anxiously watchful for the results as the work was in progress

A flexure correction of 1″ 72 × sin Zenith Distance, was applied provisionally to the Polar Distances in this volume and I regret not having awaited a final value before using such a correction at all

Any investigation of the correction to the assumed latitude before the flexure correction is finally settled would be premature, nor do I think it will be worth while to trifle with partial year to year enquiries now that all the observations for the Catalogue are completed There is good reason to believe that the latitude requires to be increased (Mr Taylor used 9″ 2 instead of 8″ 1 for his "*General Catalogue for* 1835") and it will be far better to combine all observations taken of each star, above and below pole, when reduced to the epoch 1875, a work which I hope to proceed with as early as other duties will permit, while the next volume is in hand

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1862			s	s	s	
May 31	− 3 5	+0 7	− 0 36	0 00	+ 0 39	
June 2	− 5 0	+0 8	− 0 32	0 00	+ 0 53	ρ Bootis and Polaris
3	− 4 5	+0 8	− 0 14	0 00	+ 0 45	ρ Bootis and 34 R P L
4	− 4 1	+0 8	− 0 46	0 00	+ 0 19	108 R P L and β Corvi
5	− 3 8	+ 0 8	− 0 34	0 00	+ 0 50	108 111 115 R P L and ε β Corvi Spica
7	− 4 8	+0 5	− 0 34	+ 0 13	+ 1 16	111 R P L and α Libræ
9	− 3 5	+ 0 5	− 0 32	− 0 08	+ 0 09	
10	− 4 0	+0 7	− 0 36	− 0 06	+ 0 09	ε Urs Min and Antares
12	− 5 2	+0 5	− 0 42	− 0 02	+ 0 13	111 R P L and Antares

The Inclination correction was adjusted on each of the first five nights on which the instrument was used It was afterwards determined about noon, on June 7 9, 12

The Right Ascension micrometer was set to the corrected reading for no collimation except on June 7 when it was left by mistake so as to require a correction of − 0 14 second

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1862			s	s	s	
June 13	− 4 6	+ 0 5	− 0 40	− 0 05	+ 0 11	
16	− 4 1	+ 0 3	− 0 38	− 0 06	+ 0 03	
19	− 3 6	+ 0 2	− 0 41	− 0 05	− 0 05	111 R P L β Urs Min and β Scorpii
21	− 4 5	+ 1 0	− 0 36	− 0 06	+ 0 19	3 Urs Min and β Libræ
24			− 0 23	− 0 05	+ 0 21	111 R P L and α Serpentis
27			− 0 25	− 0 05	+ 0 18	
30			− 0 38	− 0 05	+ 0 13	
July 3	+ 0 3	0 0	− 0 35	+ 0 02	+ 0 11	ε Urs Min and θ Ophiuchi
4	+ 0 3	− 0 2	− 0 34	+ 0 02	+ 0 13	δ Urs Min and β¹ Scorpii
8	+ 0 1	0 0	− 0 39	+ 0 02	+ 0 07	
12	− 1 1	+ 0 2	− 0 35	− 0 05	+ 0 01	δ Urs Min and ρ Capricorni
15	+ 3 5	+ 0 1	− 0 33	− 0 03	+ 0 04	ε Urs Min and β¹ Scorpii
16	+ 3 9	+ 0 1	− 0 36	− 0 03	+ 0 05	
18	+ 4 1	0 0	− 0 40	− 0 02	+ 0 04	
19	+ 3 8	0 0	− 0 39	− 0 02	+ 0 03	
22	+ 2 6	0 0	− 0 33	− 0 02	0 00	
23	+ 2 7	+ 0 5	− 0 22	− 0 03	− 0 02	ε Urs Min and β¹ Scorpii
24	+ 2 7	+ 0 5	− 0 18	− 0 01	+ 0 04	
25	+ 3 0	+ 0 3	− 0 20	− 0 01	+ 0 09	ε Urs Min and β¹ Scorpii
26	+ 2 4	− 0 1	− 0 28	− 0 01	+ 0 06	ε Urs Min and β¹ Scorpii
28	+ 2 4	− 0 1	− 0 56	− 0 07	+ 0 08	δ Urs Min and β¹ Scorpii
July 29	+ 2 5	− 0 3	− 0 53	− 0 07	+ 0 12	131 R P L and δ Aquilæ
30	+ 2 7	+ 0 2	− 0 63	− 0 07	+ 0 12	
31	+ 2 4	0 0	− 0 63	− 0 07	+ 0 12	
Aug 1	+ 2 2	0 0	− 0 12	− 0 07	+ 0 05	δ Urs Min and α Capricorni
2	+ 2 4	− 0 1	− 0 10	− 0 07	+ 0 03	δ Urs Min and α Ophiuchi

The microscopes were removed on June 23 for a few days during the fastening of a conical stone ring to the western pier between them and the lamp
The microscopes were re adjusted throughout on July 3 and 15
The Clock rate was diminished 0 5 second after the observations on July 31
The Inclination correction was determined usually about noon on June 14 17 20 July 3 10 15 21 28 and August 4
The Right Ascension micrometer was set to the corrected reading for no collimation except on June 19 when by a careless mistake it was left seven revolutions wrong and a correction of − 12 40 seconds had to be used

Instrumental Corrections adopted in 1862

Date	Index	Run in ρ	Clock Rate	Inclination	Meridian	Determining Stars
1862			s	s	s	
Aug 5	+1.9	+0.2	−0.07	−0.05	+0.03	
9	+2.2	+0.1	−0.15	−0.05	+0.03	
12	+3.5	0.0	−0.07	−0.12	+0.03	
13	+3.7	−0.3	−0.02	−0.12	+0.03	
14	+2.3	−0.3	−0.10	−0.12	+0.09	λ Urs Min and h Sagittarii
16	+3.3	+0.1	−0.26	+0.01	+0.09	
18	+3.2	0.0	−0.33	+0.01	+0.09	
20	+4.2	0.0	−0.52	+0.01	+0.09	δ Urs Min and Altair
21	+3.2	−0.2	−0.42	+0.01	+0.08	δ Urs Min and β Aquilæ
22	+3.1	−0.5	−0.28	+0.01	+0.17	131 R P L and δ Aquilæ
23	+3.2	−0.5	−0.28	+0.01	+0.16	150 R P L and δ Aquilæ
25	+2.7	−0.5	−0.32	−0.09	+0.13	
26	+2.7	−0.1	−0.39	−0.09	+0.12	
27	+2.8	−0.3	−0.35	−0.09	+0.10	
28	+0.5	+0.4	−0.27	−0.09	+0.09	
Sep 1	−0.9	0.0	−0.33	−0.22	+0.03	
3	+0.8	−0.1	−0.36	−0.22	0.00	
5	{ +0.6 / +1.2 }	0.0	−0.19	−0.22	−0.03	γ Aquilæ and 51 Cephei
6	+0.7	+0.4	−0.17	−0.26	+0.02	150 and 72 R P L
8	+1.5	+0.2	−0.30	−0.23	+0.02	
9	+1.8	+0.2	−0.21	−0.23	+0.02	
10	+1.1	+0.1	−0.24	−0.23	+0.01	12 and 89 R P L
11	+0.7	+0.2	−0.38	−0.23	+0.01	
12	+0.2	+0.1	−0.39	−0.23	+0.01	
13	+0.9	+0.1	−0.40	−0.23	+0.01	
15	+0.9	+0.1	−0.32	−0.21	+0.01	
16	+0.4	0.0	−0.35	−0.22	+0.01	

The two brass arcs which support microscopes B and C were removed for necessary alterations and repair of a broken screw on August 25

The Inclination correction was determined, usually about noon on August 11 16, 25 29 September 1 2 4 8 16

The Right Ascension micrometer was set to the corrected reading for no collimation except on September 1 when it was slightly misplaced leaving a correction of + 0.02 second, and also on September 3 and 5, when the required correction was + 0.01 second

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1862			s	s	s	
Sep 17	+0.6	+0.2	−0.23	−0.22	+0.02	
18	0.0	+0.2	−0.12	−0.22	+0.02	
20	0.0	+0.2	−0.32	−0.22	+0.02	
22	+1.[illegible]	+0.2	−0.01	−0.31	+0.02	151 R P L and 12 Ceti
23	+1.7	0.0	+0.02	−0.22	+0.02	
24	+1.7	+0.3	−0.[illegible]6	−0.22	+0.02	
26	+2.8	+0.1	−0.73	−0.26	+0.03	
27	+2.3	−0.3	−0.79	−0.26	+0.03	
29	+2.5	−0.3	−0.[illegible]7	−0.26	+0.03	150 R P L and β Aquarii
30	+2.9	+0.8	−0.81	−0.26	+0.02	150 158 R P L and ρ Capricorni
Oct 1	+0.8	+0.2	−0.80	−0.31	+0.03	
2	+1.2	+0.3	−0.76	−0.31	+0.04	150 and 72 R P L
3	+1.6	−0.2	−0.76	−0.31	+0.03	
4	+1.1	0.0	+0.27	−0.31	+0.03	
6	+0.8	+0.5	+0.14	−0.31	−0.01	150 R P L and ι Piscium
7	+0.8	−0.4	+0.22	−0.31	+0.03	150 and 70 R P L
8	+0.8	0.0	+0.20	−0.27	+0.03	
9	+0.6	−0.2	+0.12	−0.27	+0.03	
10	+2.2	−0.2	+0.24	−0.27	+0.03	
11	+1.6	+0.1	+0.27	+0.11	−0.0[illegible]	150 R P L and ο Pegasi
13	+1.5	+0.1	+0.17	+0.11	−0.03	150 and 72 R P L
14	+1.7	−0.1	+0.20	+0.11	−0.04	150 P P L and α Aquarii
15	+1.8	+0.1	+0.26	+0.11	+0.01	150 and 72 R P L
16	+1.6	0.0	+0.17	+0.10	−0.05	150 and 72 R P L
17	+2.0	+0.4	+0.12	+0.10	−0.06	
18	+1.2	+0.3	+0.13	+0.10	−0.07	
20	+1.7	+0.3	+0.17	+0.10	−0.08	
21	+1.2	0.0	+0.17	+0.10	−0.09	Polaris and δ Sculptoris

The Clock rate was diminished by 1 second after the observations on October 3

The Inclination correction was determined usually about noon on September 24 26 October 6 11 16 It was adjusted on October 4

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1862			s	s	s	
Oct 23	+1 1	−0 1	+0 11	+0 13	−0 07	Polaris and δ Sculptoris
24	+1 0	−0 1	+0 11	+0 13	−0 07	
25	+0 3	+0 1	−0 01	+0 13	−0 06	
27	+0 8	+0 2	−0 35	+0 13	−0 05	
28	−0 5	+0 2	−0 19	+0 13	−0 05	158 and 79 R P L
29			−0 01	+0 13	−0 02	
31	+2 1	+0 4	+0 01	+0 13	+0 04	26 P I I and β Ceti
Nov 1	+3 1	+0 6	+0 05	+0 09	+0 09	ω Piscium and 72 R P L
3	+3 3	+0 5	+0 06	+0 09	+0 11	153 and 72 R P L
4	+3 2	+0 1	+0 08	+0 09	+0 14	153 and 93 R P L
5	+3 0	+0 1	+0 02	+0 09	+0 12	153 and 72 R P L
6	+3 1	+0 6	+0 07	+0 09	+0 17	153 and 72 R P L
7	+2 4	−0 2	+0 00	+0 09	+0 07	26 and 89 R P L
8	+1 7	0 0	−0 11	+0 09	+0 ~~18~~ 06	26 and 103 R P L
11	+0 6	+0 5	−0 03	+0 09	+0 21	153 and 72 R P L
12	+1 4	+0 5	+0 03	+0 09	+0 12	150 and γ Piscium
13	+1 9	+0 4	+0 03	+0 06	+0 16	150 and 72 R P L
14	+1 3	−0 3	−0 01	+0 06	+0 09	Polaris and θ Aquarii
15	0 0	−0 3	−0 04	+0 06	−0 01	26 and 92 R P L
20	+1 3	−0 3	−0 28	+0 13	+0 09	Polaris and β Ceti
22	+3 1	−0 3	−0 24	+0 13	+0 11	
24	+4 5	−0 3	−0 12	+0 13	+0 12	
25	+ 7	−0 1	−0 13	+0 13	+0 13	Polaris and γ Ceti
26	+3 1	−0 4	−0 18	+0 13	+0 13	
28	+4 4	−0 4	−0 18	+0 14	+0 13	12 R P L and θ Ceti
29	+4 6	−0 3	−0 08	+0 14	+0 14	
Dec 1	+2 1	−0 3	−0 10	+0 17	+0 18	33 and 89 R P L
2	+2 2	−0 2	−0 17	+0 17	+0 10	33 and 114 R P L

The Inclination correction was determined usually about noon, on October 23 November 1, 14 17, 29 and December 1

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1862			s	s	s	
Dec 3	+1 8	+0 4	−0 17	+0 17	+0 11	Polaris and ν Piscium
4	+1 9	+0 3	−0 23	+0 17	+0 18	α Arietis and ϵ Urs Min
5	+1 1	+0 3	−0 28	+0 17	+0 14	10 R P L and β Ceti
6	+0 8	+0 2	−0 33	+0 17	+0 16	
8	−0 1	+0 2	−0 39	+0 17	+0 20	40 R P L and ϵ Urs Min
9	−0 1	+0 4	−0 34	+0 17	+0 21	43 R P L and ϵ Urs Min
10	+0 2	+0 4	−0 21	+0 17	+0 15	26 R P L and γ Ceti
11	+0 6	+0 1	−0 25	+0 17	+0 18	Polaris and α Arietis
20			−0 37	+0 12	+0 18	
25			−0 31	+0 12	+0 19	
29			−0 30	+0 12	+0 20	33 R P L and 67 Ceti
31			−0 37	+0 04	+0 22	33 R P L and 67 Ceti

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1863			s	s	s	
Jan 3			−0 32	+0 14	+0 18	
5	+2 5	0 0	−0 30	+0 14	+0 15	
6	+0 8	+0 2	−0 23	+0 14	+0 13	43 R P L and γ^1 Eridani
7	+0 4	+0 1	−0 27	+0 14	+0 08	Procyon and δ Urs Min
8	+1 1	+0 2	−0 35	+0 14	+0 16	33 R P L and γ^1 Eridani
9	+1 1	−0 4	−0 60	+0 14	+0 16	33 R P L and δ Urs Min
10	+1 0	−0 4	−0 76	+0 14	+0 11	33 R P L and δ Urs Min
12			−0 37	+0 14	+0 10	
14	−1 3	+0 3	−0 34	+0 16	+0 08	35 R P L and δ Orionis
15	−1 5	+0 3	−0 38	+0 16	+0 31	34 R P L and o^1 Eridani

The Inclination correction was determined about noon on December 15 16 30 in 1862 and also on January 15 1863

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in ɔ	Clock Rate	Inclination	Meridian	Determining Stars
1863			s	s	s	
Jan 16	{−1.3, −0.9}	{+0.1, −0.1}	−0.45	+0.15	+0.24	33 R P L and Rigel
17	−1.1	+0.4	−0.40	+0.15	+0.21	
19	−1.2	+0.3	−0.21	+0.15	+0.15	51 Cephei and δ Urs Min
20	−1.2	+0.2	−0.22	+0.15	+0.14	51 Cephei and δ Urs Min
21	−2.1	+0.2	−0.18	+0.16	+0.10	
22	−2.1	0.0	−0.20	+0.16	+0.07	51 Cephei and α Columbæ
23	0.0	+0.1	−0.30	+0.17	+0.06	
24	+0.6	0.0	−0.31	+0.17	+0.06	51 Cephei and 131 R P L
29	+2.0	+0.1	−0.24	+0.19	+0.06	51 Cephei and Rigel
30	+[illegible].0	+0.3	−0.24	+0.20	+0.04	
Feb 2	+2.5	{+0.4, −0.3}	−0.46	+0.22	−0.02	70 and 150 R P L
3	+2.0	+0.1	−0.42	+0.22	+0.05	51 Cephei and ο Urs Min
4	+2.3	+0.2	−0.32	+0.22	+0.10	Pollux and λ Urs Min
5	+1.1	+0.1	−0.27	+0.22	+0.04	77 R P L and ε Hydræ
6	+1.2	0.0	−0.23	+0.22	+0.13	ε Leonis and 150 R P L
9	+1.2	+0.1	−0.08	+0.22	+0.05	51 Cephei and δ Urs Min
10	+1.3	0.0	−0.11	+0.22	+0.04	
11	+0.7	0.0	−0.15	+0.22	+0.03	51 Cephei and δ Urs Min
12	+1.0	0.0	−0.09	+0.23	+0.02	
13	+1.4	0.0	−0.08	+0.23	0.00	Castor and δ Urs Min
14	+1.0	+0.3	−0.11	+0.23	0.00	
16	+1.1	+0.2	−0.14	+0.24	−0.01	
17	+0.5	+0.3	−0.11	+0.24	−0.01	51 Cephei and δ Urs Min
18	+0.3	+0.1	−0.23	+0.24	−0.01	
19			−0.31	+0.24	−0.01	
21	+0.5	+0.1	−0.33	+0.25	−0.01	

The Inclination correction was determined between noon and 3 P M on January 16 31 February 2 5 13

The Right Ascension micrometer was set to the corrected reading for no collimation except on January 16 when the observer during the second part of the night slightly misplaced it leaving a correction of +0.01 second

Instrumental Corrections adopted in 1863

Date		Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1863				s	s	s	
Feb	23	−0 6	+0 1	−0 39	+0 25	−0 01	51 Cephei and ν Orionis
	24	−1 5	0 0	−0 36	+0 24	0 00	
	25	−1 2	+0 1	−0 35	+0 24	+0 02	Pollux and λ Urs Min
	26	−1 1	+0 1	−0 31	+0 23	+0 03	
	27	−1 2	+0 2	−0 17	+0 23	+0 05	60 R P L and λ Urs Min
	28	−1 3	+0 2	−0 15	+0 22	+0 02	
Mar	2	−0 3 −0 2 +0 3	−0 1 +0 9 −0 1	−0 22	+0 21	−0 03	51 Cephei and δ Urs Min
	3	−0 5	+0 1	−0 18	+0 22	0 00	70 R P L and λ Urs Min
	4	−1 0	−0 3	−0 24	+0 22	0 00	Procyon and λ Urs Min
	5	−0 7	+0 4	−0 22	+0 23	−0 04	60 R P L and λ Urs Min
	6	−1 3	+0 3	−0 21	+0 24	−0 05	
	7	−1 3	+0 2	−0 36	+0 26	−0 06	70 R P L and Spica
	9	−1 0	+0 3	−0 36	+0 28	−0 04	60 and 150 R P L
	11	−0 4	+0 2	−0 18	+0 31	−0 09	
	12	−0 6	+0 1	−0 32	+0 32	−0 11	72 and 131 R P L
	13	−0 8	+0 1	−0 32	+0 32	−0 11	
	14	−0 7	−0 3	+0 30	+0 32	−0 11	
	15			+0 30	+0 27	−0 11	
	16	−0 3	+0 3	+0 09	+0 32	−0 10	
	17	−0 4	0 0	−0 05	+0 32	−0 09	60 R P L and α Hydræ
	18	0 0	−0 3	+0 06	+0 32	−0 11	60 and 150 R P L
	19	− 0 1	−0 1	−0 21	+0 32	−0 11	
	20	−0 8	0 0	−0 37	+0 33	−0 13	89 and 158 R P L
	23	−0 8	+0 2	+0 03	+0 33	−0 13	
	24	−1 0	+0 2	+0 05	+0 33	−0 13	89 and 158 R P L
	25	−1 1	+0 2	−0 02	+0 33	−0 14	
	26	−1 0	+0 2	−0 09	+0 33	−0 16	89 and 158 R P L

The Clock tripped two seconds in winding on March 14th Stopped it and adjusted the pendulum
The Inclination correction was determined between noon and 5 P M on February 23 March 2 4 12 20
The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1863			s	s	s	
Mar 27	−1 6	+0 3	−0 10	+0 32	−0 15	
28	−1 0	+0 3	−0 13	+0 32	−0 14	89 and 158 R P L
30	−1 0	+0 2	−0 20	+0 32	−0 14	
31	−0 5	+0 2	−0 12	+0 32	−0 13	89 and 158 R P L
Apl 1	−0 9 0 0 −0 3	+0 3 +0 5 +0 3	−0 07	+0 33	−0 14	3 Virginis and Polaris
4			0 00	+0 33	−0 18	
6			−0 01	+0 33	−0 19	
8	−1 2	−0 1	−0 07	−0 04	−0 21	70 R P L and Polaris
9	−1 1	+0 1	−0 12	−0 01	−0 19	
10	−2 1	+0 3	−0 11	+0 02	−0 17	70 R P L and Polaris
11	−1 7	+0 4	−0 07	+0 02	−0 18	
13	−1 0	−0 2	−0 17	+0 02	−0 19	70 R P L and Polaris
14	−1 0	−0 3	−0 14	+0 02	−0 17	
15	−1 7	−0 2	−0 22	+0 03	−0 15	70 R P L and Polaris
16	−1 2	+0 3	−0 29	+0 04	−0 15	
17	−1 3	−0 2	−0 16	+0 04	−0 16	l Leonis and Polaris
18	−1 3	+0 3	−0 14	+0 05	−0 15	
23	−0 4	+0 3	−0 30	+0 06	−0 12	89 and 159 R P L
27	+0 8	−0 6	−0 24	+0 07	−0 08	89 R P L and δ Crateris
28	+0 1 +2 2	−0 6 +0 5	−0 05	+0 07	−0 05	Regulus and Polaris
29	+0 1	−0 6	−0 01	+0 07	−0 08	
30	+0 6	−0 6	−0 17	+0 08	−0 11	72 and 150 R P L
May 1	−0 1 +1 8	−0 6 +0 5	−0 17	+0 08	−0 14	
2	+0 7 +1 7	−0 6 +0 5	−0 13	+0 08	−0 16	89 and 158 R P L
4	0 0	+0 4	−0 44	+0 07	−0 14	

The eye end of the telescope was removed on April 7 to have the polar distance micrometer repaired by Mr F Doderet The collimators and the inclination correction were adjusted

The Inclination correction was determined between 2 and 7 P M on March 31, April 1, 7 10 15, 16 and May 1

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1863			s	s	s	
May 5	+0 6	+0 4	−0 35	+0 07	−0 13	
6	−0 1	+0 2	−0 17	+0 07	−0 12	89 R P L and δ Crateris
7	−0 1	−0 1	−0 27	+0 07	−0 14	
8	+0 4	0 0	−0 21	+0 07	−0 15	
9	−0 4	0 0	−0 14	+0 06	−0 17	111 R P L and Polaris
11	+0 6	−0 1	−0 18	+0 06	−0 18	
12	+1 2	0 0	−0 21	+0 06	−0 18	
15	0 0	−0 3	−0 13	+0 05	−0 20	
16	+3 4	+0 2	−0 16	+0 04	−0 20	
18	+4 0	+0 2	−0 29	+0 03	−0 21	δ Virginis and Polaris
19	+3 5	+0 2	−0 47	+0 03	−0 21	108 R P L and Polaris
20	+3 0	+0 2	−0 44	+0 04	−0 20	
21	+2 9	+0 2	−0 27	+0 04	−0 19	
22	+2 9	+0 2	−0 31	+0 05	−0 18	
23	+3 2	+0 2	−0 29	+0 05	−0 16	
26	+2 9	+0 2	−0 14	+0 06	−0 13	99 R P L and Polaris
27	+2 8	+0 2	−0 20	+0 07	−0 12	
28	+2 2	+0 2	−0 28	+0 07	−0 12	ε Bootis and 35 R P L
29	+2 5	+0 2	−0 32	+0 08	−0 16	
30	+2 6	+0 2	−0 31	+0 08	−0 19	β and 3 Urs Min and β^1 Scorpii
June 1	+2 0	+0 2	−0 18	+0 09	−0 06	99 R P L and β Corvi
2	+2 4	+0 2	−0 18	+0 09	−0 06	ρ Bootis and Polaris
3	+2 4	+0 2	−0 16	+0 09	−0 11	
4	+1 5	+0 2	−0 15	+0 09	−0 19	ε Urs Min and ρ Capricorni
5	+1 9	+0 2	−0 22	+0 08	−0 14	
9	+2 5	+7 2	+0 11	+0 08	−0 06	ε Urs Min and Polaris 10 R P L
10	+1 6	+0 2	+0 13	+0 08	−0 06	99 R P L and Polaris

The microscopes were adjusted on May 16

The Inclination correction was determined between 2 and 4 P M on May 16 18 and June 1

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclination	Meridian	Determining Stars
1863			s	s	s	
June 11	+1 6	+0 2	+0 04	+0 08	− 0 06	δ Urs Min and Polaris
18	+2 0	+0 2	− 0 12	+0 07	− 0 09	
20	+1 2	+0 2	− 0 12	+0 06	− 0 10	
23	+1 3	+0 2	− 0 06	+0 05	− 0 11	
26	+1 2	+0 2	− 0 11	+0 04	− 0 13	
27	+0 6	+0 2	− 0 19	+0 03	− 0 13	ε Urs Min and β Libræ
29	+1 8	+0 2	− 0 27	+0 03	− 0 03	δ Urs Min and 51 Cephei
30	+1 3	+0 2	− 0 06	+0 02	− 0 05	116 R P L ε Urs Min and κ Ophiuchi
July 1	+0 5	− 0 2	− 0 02	+0 02	− 0 05	
2	+0 4	− 0 2	− 0 09	+0 03	0 00	δ Urs Min and α^2 Capricorni
3	+0 1	− 0 2	− 0 04	+0 04	0 00	
10	+0 8	− 0 2	− 0 08	+0 09	0 00	131 R P L and α^2 Libræ
11	+1 0	− 0 2	− 0 06	+0 10	0 00	
13	+1 2	− 0 2	+0 07	+0 12	0 00	
14	+0 9	0 0	+0 07	+0 12	0 00	
16	+2 6	0 0	+0 17	+0 13	+0 01	
18	+2 8	0 0	+0 09	+0 11	+0 01	
20	+3 1	0 0	− 0 16	+0 09	+0 01	ε δ Urs Min and θ Ophiuchi
23	+3 8	0 0	− 0 11	+0 06	0 00	
28	+2 5	0 0	− 0 11	+0 02	− 0 02	
29	+2 8	0 0	− 0 10	+0 01	− 0 03	ε Urs Min and α Pavonis
31	+2 7	0 0	− 0 05	− 0 01	− 0 03	δ Urs Min and 72 R P L
Aug 3	+2 0	− 0 2	+0 04	− 0 01	− 0 04	
7	+1 9	− 0 2	− 0 08	− 0 07	− 0 05	
12	+1 7	− 0 2	− 0 19	− 0 10	− 0 06	131 R P L and μ^1 Sagittarii
15	+1 9	− 0 2	− 0 11	− 0 11	− 0 05	
18	+2 3	+0 4	− 0 05	− 0 11	− 0 04	150 and 72 R P L
22	+2 9	+0 4	− 0 02	− 0 05	− 0 10	δ Urs Min and h^2 Sagittarii

The Inclination correction was determined between 2 and 4 P M, on June 16 July 1, 16, August 1 10 17 22

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

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Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1863			s	s	s	s	
Aug 24	+2 5	+0 4	+0 03	−0 06	0 00	−0 03	o λ Urs Min 131 I P L and 60 P I I
26	+2 3	+0 4	+0 06	−0 07	0 00	−0 01	
27	+2 4	+0 4	+0 09	−0 08	0 00	−0 04	150 I I L λ Urs Min and ρ Capricorni
28	+2 0	−0 2	−0 01	−0 08	0 00	0 00	
29	+2 4	+0 1	−0 14	−0 09	0 00	+0 03	Polaris and 89 R I I
31	+2 0	+0 4	−0 10	−0 10	0 00	+0 01	
Sep 4	+2 0	−0 2	−0 16	−0 10	0 00	−0 04	
8	+2 2	−0 2	−0 34	−0 10	0 00	−0 08	
12	+2 1	−0 2	−0 35	−0 11	0 00	−0 13	λ Urs Min and β Aquilæ
14	+1 9	−0 2	−0 25	−0 11	0 00	−0 03	131 and 60 R I I
15	+1 9	−0 2	−0 26	−0 11	0 00	−0 03	
18	+2 1	0 0	−0 25	−0 11	0 00	−0 01	
23	+2 4	0 0	−0 14	−0 11	0 00	−0 05	
25	+1 6	0 0	−0 12	−0 11	0 00	−0 05	150 151 R P L and η Aquarii
26	+1 6	0 0	−0 19	−0 16	−0 03	−0 05	
28	+1 7	0 0	−0 29	−0 13	0 00	−0 06	158 and 89 P P I
30	+2 1	0 0	−0 31	−0 09	+0 05	−0 06	
Oct 1	+1 2	−0 2	−0 17	−0 03	+0 06	−0 05	
2	+1 1	−0 2	−0 13	+0 01	0 00	−0 05	
3	+1 2	−0 2	−0 26	−0 08	−0 02	−0 05	
5	+1 0	−0 2	−0 15	−0 06	−0 01	−0 04	
6	+0 6	−0 2	−0 09	−0 07	−0 02	−0 04	143 and 60 R I I
7	+0 8	−0 2	−0 11	−0 12	−0 03	−0 03	
8	+0 5	−0 2	−0 17	−0 11	−0 03	−0 03	1 0 P P I 24 Cephei and ρ Capricorni

The Inclination correction was determined between 2 and 4 p m on August 31 Sep 16 21

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe up to September 25

The Inclination and Collimation and corrections were determined each night during observing hours by the Assistant on duty from September 26 the Meridian correction also whenever polar stars were available

Instrumental Corrections adopted in 1865

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
186			s	s	s	s	
Oct 9	+1.0	−0.2	−0.11	−0.10	−0.02	0.00	
10	+0.6	−0.2	−0.08	−0.07	−0.02	0.02	150 and 70 R P L
13	+0.1	−0.2	+0.04	−0.01	0.00	0.00	
14	+1.0	−0.2	−0.12	−0.17	−0.06	0.00	
16	+1.2	+0.2	−0.31	−0.19	−0.05	0.00	150 R P L and Fomalhaut
17	+1.3	+0.2	−0.23	−0.23	−0.05	+0.03	158 and 99 R P L
23	+8.0	+0.2	−0.26	−0.31	−0.05	+0.16	150 and 69 R P L
24	+8.3	+0.2	−0.26	−0.25	−0.02	+0.16	
26	+8.7	+0.2	−0.31	−0.23	−0.01	+0.16	Polaris and δ Sculptoris
27	+8.1	+0.2	−0.32	−0.18	−0.01	+0.16	Polaris and 108 R P L
28	+8.0	+0.2	−0.28	−0.16	−0.02	+0.16	
29	+6.7	+0.2	−0.19	−0.12	−0.01	+0.15	
30	+6.3	+0.2	−0.59	−0.14	+0.01	+0.15	
31	+6.0	+0.2	−0.11	−0.16	−0.02	+0.14	155 and 89 R P L
Nov 2	+6.1	−0.2	0.28	−0.12	+0.02	+0.22	150 and 72 R P L
3	+1.8	−0.2	−0.13	−0.20	−0.02	+0.27	
4	+1.8	−0.2	−0.41	−0.11	+0.04	+0.33	150 and 89 R P L
5	+1.1	−0.2	−0.50	−0.17	−0.01	+0.23	α Piscium and 92 R P L
6	+5.2	−0.2	−0.59	−0.15	+0.04	+0.21	
7	+2.8	−0.2	−0.41	−0.12	+0.05	+0.20	
9	+2.8	−0.2	−0.33	−0.19	−0.02	+0.17	158 and 108 R P L
11	+2.9	−0.2	−0.39	−0.18	−0.06	+0.11	
13	+2.5	0.2	−0.20	−0.13	−0.01	+0.11	
14	+2.8	−0.2	−0.16	−0.20	−0.06	+0.10	26 and 89 R P L
15	+2.2	+0.2	−0.29	−0.17	−0.03	+0.03	Polaris and Achernar
20	+3.4	+0.2	−0.41	−0.23	−0.10	+0.01	
21	+2.6	+0.2	−0.44	−0.18	−0.03	+0.05	35 and 116 R P L
23	+2.5	+0.2	−0.36	−0.24	−0.05	+0.12	
24	+3.0	+0.2	−0.44	−0.20	−0.03	+0.15	

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina tion	Collima tion	Meridian	Determining Star	
1863			s	s	s	s		
Nov 25	+ 2 1	+ 0 2	− 0 42	− 0 17	− 0 03	+ 0 19	26 34 R P L and γ^1 Eridani	
26	+ 2 0	+ 0 2	− 0 36	− 0 19	− 0 01	+ 0 15	26 34 and 116 R P L	
27	+ 1 6	+ 0 2	− 0 41	− 0 22	0 00	+ 0 11		
28	+ 1 6	+ 0 2	− 0 43	− 0 20	+ 0 01	+ 0 07		
30	+ 1 4	+ 0 2	− 0 49	− 0 27	− 0 06	0 00	Polaris and Achernar	
Dec 7	+ 6 0	− 0 2	− 0 72	− 0 06	− 0 02	23 + 0 33	33 and 103 R P L	+0 23
8	+ 6 2	− 0 2	− 0 55	− 0 05	+ 0 01	+ 0 32	40 and 67 R P L	
9	+ 6 1	− 0 2	− 0 48	− 0 11	− 0 04	+ 0 30		
10	+ 5 0	− 0 2	− 0 50	− 0 15	+ 0 03	+ 0 27		
11	+ 5 1	− 0 2	− 0 40	− 0 18	+ 0 01	+ 0 25	35 R P L and 67 Ceti	
12	+ 3 8	− 0 2	− 0 39	− 0 22	+ 0 01	+ 0 21	Polaris and 111 R P L	
14	+ 4 8	− 0 2	− 0 43	− 0 19	+ 0 01	+ 0 19		
15	+ 3 5	− 0 2	− 0 49	− 0 23	− 0 02	+ 0 18	33 and 114 R P L	
16	+ 3 2	+ 0 2	− 0 54	− 0 23	− 0 05	+ 0 13		
17	+ 4 9	+ 0 2	− 0 52	− 0 27	− 0 06	+ 0 08	Polaris and 111 R P L	
18	+ 3 5	+ 0 2	− 0 56	− 0 28	− 0 06	+ 0 10		
19	+ 2 9	+ 0 2	− 0 58	− 0 28	− 0 05	+ 0 13		
21	+ 3 2	+ 0 2	− 0 62	− 0 21	− 0 02	+ 0 18		
22	+ 2 8	+ 0 2	− 1 34	− 0 22	− 0 02	+ 0 20	Polaris and Achernar	
23	+ 2 6	+ 0 2	− 1 58	− 0 14	+ 0 02	+ 0 17	35 and 111 R P L	
24	+ 2 9	+ 0 2	− 0 90	− 0 20	− 0 01	+ 0 17		
25	+ 2 5	+ 0 2	− 0 66	− 0 21	− 0 02	+ 0 18		
26	+ 2 8	+ 0 2	− 0 63	− 0 18	− 0 01	+ 0 17		
29	+ 2 7	− 0 2	− 0 57	− 0 18	− 0 01	+ 0 16		
30	+ 1 9	− 0 2	− 0 62	− 0 21	− 0 01	+ 0 16		
31	+ 0 9	− 0 2	− 0 62	− 0 17	+ 0 02	+ 0 15		

Sudden and considerable changes in the Index Inclination and Meridian corrections usually occur after heavy rain instances of which may be seen after October 14th and November 30th in the preceding table Buildings resting upon massive foundations like the Observatory are up heaved as a block and slightly tilted slowly recovering their positions as the rain leaves the sandy soil by drainage and evaporation Where the foundations are less solid cracked walls and too frequent collapses are the familiar results of a heavy downpour, as may be noticed after every rainy season in Madras

Instrumental Corrections adopted in 1864

Date	Index	Run in s	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1864			s	s	s	s	
Jan 1	+1.0	-0.1	-0.59	-0.17	+0.01	+0.15	
2	+0.4	0.1	-0.59	-0.16	+0.04	+0.15	Polaris and θ^1 Ceti
4	+0.6	-0.1	-0.43	-0.23	-0.04	+0.08	34 and 116 R P L
5	+0.1	-0.1	-0.41	-0.21	-0.04	+0.06	
6	+0.2	-0.1	-0.57	-0.23	-0.04	0.00	51 Cephei and δ Urs Min
7	-0.6	-0.1	-0.62	-0.16	-0.01	+0.01	
11	-1.1	-0.1	-0.61	-0.21	-0.03	+0.07	51 Cephei and δ Urs Min
12	-2.3	-0.1	-0.63	-0.18	+0.02	+0.09	
15	-1.5	-0.1	-0.51	-0.14	+0.05	+0.14	51 Cephei and δ Urs Min
16	-2.7	-0.1	-0.54	-0.17	+0.03	+0.10	
18	-1.7	-0.1	-0.06	-0.18	-0.01	+0.02	
19	-1.7	-0.1	-0.06	-0.21	-0.04	-0.02	51 Cephei and δ Urs Min
20	-2.2	-0.1	-0.08	-0.19	-0.01	+0.03	
21	-2.5	-0.1	-0.06	-0.18	0.00	+0.08	
22	-3.0	-0.1	+0.05	-0.21	-0.02	+0.12	51 Cephei and ε Urs Min
23	-3.6	-0.1	+0.02	-0.24	-0.05	+0.11	
25	2.8	0.0	-0.02	-0.36	-0.12	+0.10	
26	-2.6	0.0	-0.05	-0.35	-0.08	+0.09	6 Cancri and λ Urs Min
27	-2.9	0.0	-0.03	-0.36	-0.09	-0.04	
28	-2.8	0.0	+0.02	-0.39	-0.10	-0.17	51 Cephei and 111 R P L
29	-2.8	0.0	-0.06	-0.43	-0.15	-0.14	
30	-2.4	0.0	-0.02	-0.36	-0.03	-0.12	
Feb 1	-2.8	0.0	+0.14	-0.31	-0.04	-0.07	43 R P L and δ Urs Min
2	-2.8	0.0	+0.08	-0.31	-0.05	-0.05	
3	-3.0	-0.1	+0.14	-0.22	0.00	-0.03	α Orionis and δ Urs Min
4	-2.7	0.0	+0.26	-0.28	-0.04	-0.05	
5	-2.8	0.0	+0.21	-0.33	-0.10	-0.06	
8	-3.4	0.0	+0.12	-0.27	-0.06	-0.11	51 Cephei and α Columbæ
9	-3.3	-0.1	+0.03	-0.25	-0.06	-0.03	51 Cephei and ε Urs Min
10	-3.3	-0.1	+0.07	-0.21	-0.03	-0.05	

The Transit clock rate was changed 0.5 second after the observation on January 16th

Instrumental Corrections adopted in 1864

Date		Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1864				s	s	s	s	
Feb	11	−2.9	−0.1	0.00	−0.27	−0.06	−0.08	40 R P L and δ Urs Min
	12	−2.6	−0.1	−0.03	−0.24	−0.04	−0.06	
	13	−2.7	−0.1	+0.09	−0.27	−0.05	−0.04	
	15	−2.1	0.0	+0.01	−0.22	−0.01	+0.01	49 R P L and δ Urs Min
	16	−2.5	+0.1	−0.03	−0.26	−0.03	−0.06	51 Cephei and δ Urs Min
	17	−2.5	+0.1	+0.07	−0.19	−0.01	−0.09	
	18	−2.6	+0.1	+0.28	−0.21	−0.03	−0.11	
	19	−2.2	+0.1	+0.04	−0.18	−0.07	−0.14	51 Cephei and λ Urs Min
	21			−0.26	−0.10	−0.03	−0.12	
	22	−2.7	+0.1	+0.07	−0.06	+0.01	−0.11	
	23	−2.4	+0.1	−0.12	−0.21	−0.06	−0.11	
	24	−2.1	+0.1	+0.01	−0.17	−0.03	−0.10	
	25	−2.7	+0.1	+0.13	−0.15	−0.01	−0.09	
	26	−2.2	+0.1	+0.22	−0.13	0.00	−0.08	51 Cephei and λ Urs Min
	29	−1.7	0.0	+0.26	−0.13	−0.02	−0.12	
Mar	1	−1.3	0.0	+0.32	−0.09	−0.01	−0.14	70 and 150 R P L
	2	−2.1	0.0	+0.25	−0.18	−0.07	−0.16	
	3	−2.3	0.0	+0.22	−0.11	−0.02	−0.19	51 Cephei and 24 Cephei
	4	−2.1	0.0	+0.27	−0.16	−0.06	−0.18	
	5	−2.4	0.0	+0.21	−0.21	−0.07	−0.17	51 Cephei and 150 R P L
	7	−1.8	0.0	+0.32	−0.10	−0.01	−0.18	
	8	−2.0	0.0	+0.32	−0.20	−0.06	−0.19	
	9	−1.9	0.0	+0.25	−0.22	−0.07	−0.20	49 and 150 R P L
	10	−2.2	0.0	+0.14	−0.23	−0.07	−0.19	
	11	−1.8	0.0	+0.07	−0.21	−0.04	−0.18	
	14	−2.0	0.0	+0.21	−0.20	−0.04	−0.14	70 and 150 R P L
	15	−1.9	0.0	+0.15	−0.17	−0.02	−0.10	
	16	−2.1	+0.1	+0.17	−0.09	+0.03	−0.06	60 and 143 R P L
	17	−1.5	+0.1	+0.30	−0.14	+0.02	−0.11	
	18	−1.8	+0.1	+0.33	−0.12	+0.02	−0.15	

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1864			s	s	s	s	
Mar 19	−1 4	+0 1	+0 29	−0 10	0 00	−0 20	60 R P L and 24 Cephei
21	−1 9	+0 1	+0 24	−0 07	+0 01	−0 17	
22	−2 0	+0 1	+0 25	−0 07	+0 03	−0 16	
23	−1 5	+0 1	+0 24	−0 10	−0 01	−0 15	60 and 158 R P L
30	−1 0	+0 1	+0 25	−0 05	0 00	−0 17	
31	−0 8	+0 1	+0 33	−0 05	+0 02	−0 17	72 and 158 R P L
Apl 1	−0 6	−0 3	+0 36	−0 02	−0 05	−0 18	
2	−0 9	−0 3	+0 24	−0 08	−0 03	−0 20	70 R P L and Polaris
4	−1 1	−0 3	−0 06	−0 12	−0 03	−0 21	
5	−0 5	−0 3	−0 06	−0 10	−0 03	−0 21	
6	−1 4	−0 3	−0 10	−0 09	−0 03	−0 21	89 R P L and Polaris
7	−0 3	−0 3	−0 30	−0 09	−0 03	−0 21	
8	−0 8	−0 3	−0 17	−0 07	−0 02	−0 22	
9	−0 5	−0 3	−0 21	−0 07	−0 02	−0 22	
11			−0 02	−0 07	−0 02	−0 23	
12	−0 4	−0 3	+0 11	−0 06	−0 02	−0 23	60 and 150 R P L
13	−0 7	−0 3	−0 08	−0 07	−0 03	−0 23	
14	−0 1	−0 3	+0 01	−0 07	0 00	−0 22	
15	+0 1	−0 3	−0 06	−0 05	+0 01	−0 22	72 and 150 R P L
16	−0 4	+0 1	−0 13	−0 07	0 00	−0 19	72 R P L and Polaris
18	−0 5	+0 1	+0 09	−0 06	+0 02	−0 21	
19	−0 9	+0 1	+0 17	−0 05	+0 03	−0 22	
20	−0 4	+0 1	+0 09	−0 10	−0 02	−0 23	
21	−0 7	+0 1	+0 03	−0 09	0 00	−0 24	γ Urs Maj and Polaris
22	0 0	+0 1	+0 14	−0 05	+0 02	−0 24	
23	−0 4	+0 1	+0 17	−0 04	+0 02	−0 25	
25	−0 2	+0 1	+0 15	−0 03	+0 01	−0 26	
26	0 0	+0 1	+0 11	−0 05	−0 01	−0 26	101 R P L and Polaris
27	+0 2	+0 1	+0 07	−0 03	+0 01	−0 24	
28	−0 4	+0 1	−0 06	−0 03	0 00	−0 23	

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars	
1864			s	s	s	s		
Apl 29	0 0	+0 1	−0 20	−0 04	0 00	−0 21		
30	+0 4	+0 1	−0 14	+0 02	+0 04	−0 19	η Urs Maj and Polaris	
May 2	+0 8	+0 1	+0 06	−0 01	+0 05	−0 19		
3	+0 9	+0 1	+0 08	−0 03	0 00	−0 19		
4	+0 4	+0 1	+0 06	−0 01	+0 02	−0 19		
5	+0 6	+0 1	−0 05	+0 02	+0 05	−0 19	101 R I L and Polaris	
6	0 0	+0 1	−0 20	+0 03	+0 06	−0 20		
7	+0 5	+0 1	−0 24	+0 03	+0 03	−0 21	η Urs Maj and Polaris	
10	+0 5	−0 1	−0 08	+0 02	−0 01	−0 23		
12	+0 6	−0 1	−0 13	+0 01	+0 02	−0 24	89 and 12 R P L	
13	+0 7	−0 1	−0 05	+0 04	+0 07	−0 23		
14	+0 2	−0 1	0 00	−0 02	−0 02	−0 23		
16	+0 8	−0 1	−0 57	0 00	−0 01	−0 22		
17	+1 0	−0 1	−0 51	+0 04	+0 02	−0 21	99 and 158 R P L	
18	+0 3	−0 1	−0 16	0 00	+0 01	−0 24		
19	+0 6	−0 1	−0 09	−0 01	0 00	~~−0 27~~ −0 23		−0 23
20	+1 2	−0 1	−0 08	−0 02	−0 01	−0 ~~31~~ 24		−0 24
21	−0 5	−0 1	−0 10	+0 02	+0 02	−0 ~~34~~ 24	111 and 14 R I L	0 24
23	+1 3	0 0	−0 38	−0 03	−0 01	−0 28	η Urs Maj and Polaris	
24	+1 7	0 0	−0 73	−0 01	0 00	−0 26		
25	+1 3	0 0	−0 73	+0 01	−0 02	−0 21		
26	+1 6	0 0	−0 46	0 00	0 00	−0 21		
28	+1 2	0 0	−0 27	−0 03	−0 01	−0 17	β Urs Min and Polaris	
30	+0 8	0 0	−0 02	0 00	+0 03	−0 20		
31	+0 9	0 0	−0 01	−0 02	−0 02	−0 21		
June 2	+1 3	0 0	−0 19	−0 04	0 00	−0 23		
3	+2 0	0 0	−0 20	0 00	−0 02	−0 25		
4	+1 7	0 0	−0 19	0 00	−0 02	−0 26	3 Urs Min and 33 R P L	
7	+1 4	0 0	−0 05	+0 02	0 00	−0 23		

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1864			s	s	s	s	
June 8	+1 6	0 0	−0 03	+0 01	0 00	−0 22	
10	+1 3	−0 1	−0 09	−0 01	−0 04	−0 20	
14	+1 0	−0 1	−0 19	+0 04	−0 01	−0 16	η Bootis and Polaris
15	+0 5	+0 1	−0 18	0 00	−0 01	−0 20	
16	+1 1	+0 1	−0 10	+0 01	−0 02	−0 23	ε Urs Min and 40 R P I
17	+1 0	+0 1	−0 08	+0 02	−0 01	−0 23	
18	+0 9	+0 1	−0 15	+0 07	+0 02	−0 23	
21	+0 9	+0 1	−0 25	+0 05	−0 02	−0 22	
24	+0 4	−0 2	−0 22	+0 06	−0 01	−0 21	
27	0 0	−0 2	+0 03	+0 07	−0 01	−0 20	
28	−0 4	−0 2	−0 06	+0 06	−0 05	−0 19	
29	+0 7	−0 2	−0 19	+0 06	−0 03	−0 19	111 R P L and Antares
30	+0 2	−0 2	−0 08	+0 07	−0 04	−0 19	
July 1	+0 3	−0 2	−0 02	+0 04	−0 07	−0 20	
2	+0 5	−0 2	−0 05	+0 04	−0 06	−0 20	
4	+0 7	−0 2	−0 10	+0 04	−0 04	−0 21	
7	−0 1	+0 1	0 00	+0 07	+0 02	−0 23	
8	+0 6	−0 2	+0 04	+0 07	−0 02	−0 23	
9	−0 2	−0 2	0 00	+0 03	−0 04	−0 24	
11	+0 2	−0 2	−0 12	+0 04	−0 02	−0 25	
18	−0 6	0 0	−0 11	−0 02	−0 01	−0 28	ε Urs Min and 51 Cephei
21	−0 2	0 0	+0 02	+0 04	0 00	−0 27	
22	−0 6	0 0	+0 03	+0 07	+0 01	−0 26	
23	−0 5	0 0	+0 02	+0 10	+0 03	−0 26	
25	−0 3	0 0	+0 01	+0 08	+0 04	−0 25	
26	−1 6	0 0	+0 01	+0 15	+0 05	−0 25	
Aug 5	+ 0 9	−0 2	−0 13	−0 02	−0 03	−0 21	δ Urs Min and θ Ophiuchi
8	+0 6	−0 2	+0 03	+0 01	−0 01	−0 24	δ Urs Min and μ^1 Sagittarii
9	+0 5	−0 2	+0 04	+0 01	−0 01	−0 24	
11	+0 5	−0 2	+0 08	0 00	−0 03	−0 24	ε Urs Min and 43 R P L

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1864			s	s	s	s	
Aug 12	+0 8	−0 2	+0 08	−0 02	+0 01	−0 23	
13	+0 2	−0 2	+0 06	−0 01	+0 02	−0 22	
15	+0 1	−0 2	−0 07	−0 01	−0 01	−0 21	
16	+0 6	+0 2	0 00	+0 01	−0 02	−0 20	δ Urs Min and 51 Cephei
17	−0 3	−0 2	+0 10	+0 02	+0 03	−0 21	
18	+0 2	+0 2	+0 07	−0 06	−0 02	−0 23	
19	+0 9	+0 2	0 00	−0 02	−0 02	−0 24	
20	+0 5	+0 2	−0 01	−0 02	−0 01	−0 25	
22	+0 5	+0 2	+0 13	−0 06	−0 06	−0 28	
23	+0 5	+0 2	0 00	−0 08	−0 07	−0 29	λ Urs Min and 51 Cephei
24	+0 7	+0 2	−0 07	−0 04	−0 01	−0 27	
26	+0 5	+0 2	0 00	−0 04	−0 01	−0 24	
29	+0 4	+0 2	−0 12	−0 12	−0 04	−0 20	
31	+1 5	+0 2	−0 07	−0 16	−0 04	−0 17	
Sep 2	+2 7	−0 3	0 00	−0 11	−0 01	−0 14	24 Urs Min and δ Aquilæ
5	+3 3	−0 3	0 00	−0 12	0 00	−0 13	150 R P L and ρ Capricorni
9	+2 6	−0 3	+0 02	−0 13	0 00	−0 20	
10	+2 9	−0 3	+0 03	−0 13	−0 01	−0 22	
12	+3 1	−0 3	−0 05	−0 14	0 00	−0 26	
13	+2 4	−0 3	−0 08	−0 16	−0 01	−0 28	143 and 49 R P L
14	+2 6	−0 3	−0 06	−0 17	−0 01	−0 27	
15	+1 8	−0 3	−0 10	−0 15	+0 02	−0 27	
16	+2 5	−0 1	−0 12	−0 15	+0 02	−0 26	
19	+2 7	−0 1	−0 05	−0 10	+0 02	−0 24	
20	+2 6	−0 1	−0 04	−0 10	+0 02	−0 24	
22	+2 6	−0 1	−0 06	−0 13	+0 02	−0 22	
24	+2 3	−0 1	−0 07	−0 13	+0 02	−0 21	
26	+2 3	−0 1	−0 08	−0 15	+0 01	−0 20	150 and 60 R P L
27	+2 2	−0 1	−0 07	−0 14	+0 01	−0 24	
28	+1 6	−0 1	−0 04	−0 19	−0 02	−0 28	
29	+1 8	−0 1	−0 04	−0 16	−0 01	−0 31	λ Urs Min and 60 R P L

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclination	Collimation	Meridian	Determining Stars
1864			s	s	s	s	
Oct 1	+1 3	−0 3	−0 15	−0 11	+0 01	−0 25	
3	+2 1	−0 3	−0 32	−0 16	−0 04	−0 19	158 and 72 R P L
4	+2 1	−0 3	−0 27	−0 15	+0 01	−0 19	
5	+1 5	−0 3	−0 29	−0 19	−0 04	−0 18	
6	+0 5	−0 3	−0 24	−0 14	+0 01	−0 18	
7	+0 7	−0 3	−0 18	−0 17	−0 04	−0 17	
8	+0 8	−0 3	−0 60	−0 14	−0 01	−0 17	150 R P L and δ Sculptoris
10			−0 18	−0 15	−0 01	−0 17	
11	+0 8	−0 3	−0 26	−0 16	−0 02	−0 17	
13	+1 3	−0 3	−0 24	−0 20	−0 02	−0 17	Polaris and θ Aquarii
14	+1 0	−0 3	−0 16	−0 21	−0 01	−0 18	
15	+1 3	−0 3	−0 14	−0 26	−0 06	−0 18	
17	+2 1	+0 2	−0 31	−0 22	+0 02	−0 19	
20	+5 4	+0 2	−0 36	−0 45	−0 02	−0 21	
21	+6 1	+0 2	−0 23	−0 44	−0 06	−0 22	ε Pegasi and 79 R P L
22	+6 2	+0 2	−0 16	−0 44	−0 05	−0 20	
24	+7 3	+0 2	−0 07	−0 36	−0 01	−0 15	
25	+6 3	+0 2	−0 16	−0 39	0 00	−0 13	
26	+6 6	+0 2	−0 24	−0 35	+0 02	−0 10	
27	+6 0	+0 2	−0 21	−0 35	+0 01	−0 08	Polaris and 101 R P L
28	+5 0	+0 2	−0 21	−0 31	+0 02	−0 08	
31	+4 7	+0 2	+0 84	−0 34	+0 01	−0 09	
Nov 1			+1 06	−0 34	−0 02	−0 09	
2	+5 1	−0 2	+1 23	−0 33	−0 05	−0 10	12 and 72 R P L
3	+4 3	−0 2	+1 23	−0 32	−0 03	−0 09	
4	+4 8	−0 2	−0 01	−0 30	−0 05	−0 09	
5	+3 8	−0 2	+0 01	−0 32	−0 03	−0 08	158 and 89 R P L
7	+2 8	−0 2	−0 03	−0 36	−0 03	−0 05	
8	+3 7	−0 2	−0 03	−0 34	−0 02	−0 03	
10	+4 0	−0 2	−0 03	−0 34	0 00	0 00	

The Transit clock was cleaned on October 29th without removing or in any way interfering with the pendulum Its rate was altered 1 second after the observations on November 3

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina tion	Collima tion	Meridian	Determining Stars
1864			s	s	s	s	
Nov 11	+3 4	– 0 2	– 0 07	– 0 32	– 0 01	+ 0 02	
12	+ 3 3	– 0 2	– 0 21	– 0 34	– 0 01	+ 0 04	
14	+ 3 1	– 0 2	– 0 57	– 0 33	– 0 01	+ 0 07	
16	+ 4 6	+ 0 1	– 0 75	– 0 32	+ 0 02	+ 0 10	
21	+ 6 3	+ 0 1	– 0 89	– 0 35	+ 0 02	+ 0 12	34 R P L and γ Eridani
22	+ 6 7	+ 0 1	– 0 92	– 0 30	+ 0 05	+ 0 03	Polaris 34 and 111 R P L
23	+ 6 6	+ 0 1	– 0 98	– 0 32	+ 0 04	+ 0 04	
24	+ 5 6	+ 0 1	– 1 06	– 0 32	0 00	+ 0 05	
25	+ 5 5	+ 0 1	– 1 06	– 0 37	0 00	+ 0 07	
29	+ 7 1	+ 0 1	+ 0 01	– 0 28	+ 0 04	+ 0 12	Polaris and Achernar
30	+ 7 8	+ 0 1	+ 0 08	– 0 27	+ 0 04	+ 0 09	
Dec 1	+ 7 9	– 0 3	– 0 01	– 0 29	+ 0 02	+ 0 06	Polaris and ν Piscium
2	+ 7 6	– 0 3	– 0 09	– 0 24	+ 0 07	+ 0 08	
3	+ 7 6	– 0 3	– 0 05	– 0 32	0 00	+ 0 10	
5	+ 6 7	– 0 3	– 0 18	– 0 30	+ 0 01	+ 0 15	
6	+ 7 4	– 0 3	– 0 18	– 0 33	+ 0 01	+ 0 17	33 R P L and β Ceti
7	+ 7 6	– 0 3	– 0 17	– 0 33	– 0 01	+ 0 15	
8	+ 7 7	– 0 3	– 0 20	– 0 32	0 00	+ 0 12	
9	+ 7 5	– 0 3	– 0 17	– 0 29	0 00	+ 0 10	
10	+ 6 1	– 0 3	– 0 16	– 0 32	0 00	+ 0 07	Polaris and ξ² Ceti
12	+ 6 3	– 0 3	– 0 15	– 0 36	– 0 05	+ 0 06	
13	+ 6 2	– 0 3	– 0 22	– 0 36	– 0 04	+ 0 05	
14	+ 5 0	– 0 3	– 0 27	– 0 35	– 0 02	+ 0 05	
15	+ 5 3	+ 0 1	– 0 26	– 0 34	– 0 01	+ 0 04	51 Cephei and δ Urs Min
16	+ 5 3	+ 0 1	– 0 24	– 0 34	0 00	+ 0 06	
17	+ 5 7	+ 0 1	– 0 18	– 0 37	0 00	+ 0 08	
20	+ 5 0	+ 0 1	– 0 16	– 0 27	+ 0 04	+ 0 14	Polaris 34 and 114 R P L
21	+ 4 9	+ 0 1	– 0 19	– 0 35	+ 0 03	+ 0 13	
22	+ 4 9	+ 0 1	– 0 19	– 0 30	+ 0 04	+ 0 13	
23	+ 5 0	+ 0 1	– 0 13	– 0 32	+ 0 02	+ 0 12	

The Transit clock rate was again altered 1 second on November 26th

SEPARATE RESULTS OF OBSERVATIONS

These, though forming the bulk of the present volume, require but little further explanation than is afforded by the headings of each column

In the second column, Flamsteed's numbers, Bayer's Greek letters, and familiar names by which the principal stars are known, have been used in preference to any other designations For other objects, reference is made to "*Taylor s Madras Catalogue*", to Baily's edition of "*Lalande*", to the two Catalogues of "*Bessel's Zones*", compiled by Weisse, with W B E for the first, containing stars within 15° of the equator, and W B N for the second or northern one Similarly, the northern and southern catalogues of "*Argelander's Zones*", compiled by Oeltzen, are indicated respectively by O A N and O A S Polar stars, used for meridian error, taken from the "*Catalogue of* 164 *Stars within* 6° *of the North Pole*", in Vol XVI of the "*Radcliffe Observations*", are referred to by their number therein, followed by R P L For the Variable Stars I have used my own nomenclature, agreed to by Prof Argelander, Sir John Herschel and other astronomers, when my Atlas of these objects was first fairly taken in hand, nearly thirty years back, in which Prof Argelander's letters, R, S, T, &c, are retained, but the name of the constellation is followed by Var 1, Var 2, &c, showing thereby the order of proved variability of each star in such constellation As it is now so many years since this simple method of reference to the variable stars was first suggested by me, it may be as well to state that it makes no distinction between periodical and temporary stars, those which are subject to more or less regular changes and those which have only once risen to a maximum Thus, in Cassiopeia, we have Gemma's Nova of 1572, known as B Cassiopeia Var 1 α Cassiopeia Var 2, R Cassiopeia Var 3, &c In Scorpio also, we have, R Scorpii Var 1, S Scorpii Var 2, the two small variables near the cluster 80 Messier, first figured on page 357 of Smyth's Celestial Cycle, T Scorpii Var 3, Auwer's Nova of 1860, which blazed out apparently in the centre of the cluster itself, and V Scorpii Var 4, my own Nova of 1863, No 601 of the Lists for 1863 on pages 99 and 152 of this volume

The estimations of magnitude made by Ragoonatha Chary are fairly accordant with Argelander's scale and are generally within a quarter of a magnitude, but those of Mootioosawmy, who affected tenths, were much less certain

MEAN POSITIONS OF STARS OBSERVED IN EACH YEAR

In the annual lists of Mean Positions of Stars, only complete observations are included, so as to render the mean date the same for both co ordinates The numbers and references for the stars observed are the same as in the Separate Results When magnitudes were noted, the mean of the estimations is given, but when no figure stands in the column of Estimations it must be understood that the magnitude entered is taken, from Argelander's "*Uranometria Nova*", from the two Radcliffe Catalogues, or from some other trustworthy source

The Right Ascensions and Polar Distances are the simple means of the separate results, the latter being still only provisional and subject to further small changes in regard to the corrections for flexure and assumed latitude

The tables on the four following pages, showing the excess of the Madras Mean Positions above those given in the Nautical Almanac for each year, render it certain that the Polar Distances will require some further small correction before being formed into a final general catalogue

The annual precessions were computed by means of the formulæ given in the Nautical Almanac, in which the co efficients of Prof Peters were adopted, and the secular variations are the differentials of the precessions multiplied by 100, the variations of *m* and *n* being duly taken into account

The proper motions, when not otherwise mentioned, are from the well-known lists published by Mr Main, in the 19th and 28th, and by Mr Stone, in the 33rd volumes of the "*Memoirs of the Royal Astronomical Society*" When from any other source the authority is given in the foot notes "*Greenwich Catalogue*" refers to the most recent of the five Greenwich Catalogues in which the star was found, and "*Stone's Catalogue*" to the great "*Cape Catalogue of* 12,441 *Stars* "

OTHER OBSERVATIONS WITH THE MERIDIAN CIRCLE

The observations given in this volume relate only to the fixed stars During the three years however, 163 observations of the Moon, 66 of Mars and 195 of 37 Minor Planets were made with the Meridian Circle, all of which await publication in a volume of Planetary and Cometary discoveries and observations, made chiefly with the equatoreals but supplemented by the Meridian Circle when any planet was not much below the 10th magnitude and was therefore observable in the illuminated field of that instrument

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863			1862			1863			1864		
				Obs	R A	P D	Obs	R A	P D	Obs	R A	P D
	h	*m*						*s*				
α Andromedæ	0	1	61 40	4	+ 0 03	+ 0 9	4	+ 0 01	+ 1 8	9	− 0 04	+ 2 2
γ Pegasi (*Algenib*)	0	6	75 35	2	+ 0 02	+ 0 2	6	− 0 01	+ 1 7	9	+ 0 02	+ 1 7
12 Ceti	0	23	94 43	5	− 0 03	+ 0 7	6	− 0 04	+ 1 1	9	− 0 05	+ 1 6
α Cassiopeæ	0	33	34 13				2	− 0 13	+ 1 7	1	− 0 39	+ 2 2
β Ceti	0	37	108 44	5	+ 0 02	− 0 9	2	+ 0 12	− 0 7	11	+ 0 07	− 0 4
ε Piscium	0	56	82 51	4	− 0 03	− 0 2	11	− 0 06	+ 0 7	8	− 0 04	+ 1 0
α Urs Min (*Polaris*)	1	9	1 25				9	+ 0 12	+ 0 3	8	− 0 45	+ 0 6
θ Ceti	1	17	98 53	4	− 0 01	− 0 3	12	+ 0 03	+ 0 4	6	+ 0 02	+ 1 1
η Piscium	1	24	75 22	7	+ 0 04	+ 0 2	10	+ 0 01	+ 1 7	10	+ 0 04	+ 1 9
α Eridani (*Achernar*)	1	33	147 56				2	+ 0 33	+ 2 2	3	+ 0 30	+ 3 5
ν Piscium	1	34	85 12	22	+ 0 03	+ 0 5	5	+ 0 03	+ 0 5	6	− 0 03	+ 1 1
β Arietis	1	47	69 52	15	0 00	+ 1 2	13	+ 0 01	+ 1 5	7	+ 0 01	+ 2 2
α Arietis	1	59	67 11	11	+ 0 04	+ 0 6	10	− 0 05	+ 1 5	7	− 0 05	+ 1 7
67 Ceti	2	10	97 3	6	− 0 02	+ 0 4	6	+ 0 03	+ 1 2	7	+ 0 05	+ 0 7
ξ Ceti	2	21	97 51	6	+ 0 03	− 0 1	8	− 0 02	− 0 6	9	− 0 02	− 0 1
γ Ceti	2	36	87 21	4	0 00	− 0 8	6	+ 0 01	+ 0 9	8	+ 0 05	+ 0 2
α Ceti	2	55	86 27	2	− 0 02	− 0 9	8	+ 0 02	− 0 1	7	+ 0 04	+ 0 1
δ Arietis	3	4	70 48	2	+ 0 05	+ 1 8	5	− 0 01	+ 1 8	9	− 0 05	+ 2 1
α Persei	3	15	40 38	1	0 00	+ 1 1				3	− 0 13	+ 0 3
η Tauri	3	39	66 19	3	− 0 03	+ 1 0	10	− 0 02	+ 1 2	11	0 00	+ 1 7
γ^1 Eridani	3	52	103 54	2	+ 0 04	− 1 3	8	+ 0 02	0 0	8	+ 0 09	+ 0 6
o^1 Eridani	4	5	97 12				2	− 0 03	+ 1 7	3	− 0 02	+ 1 2
ε Tauri	4	21	71 8	4	+ 0 06	+ 1 0	11	0 00	+ 0 9	13	+ 0 02	+ 1 9
α Tauri (*Aldebaran*)	4	28	73 46	1	− 0 01	+ 1 5	11	0 00	+ 1 5	9	− 0 01	+ 1 9
ι Aurigæ	4	48	57 3	2	+ 0 01	+ 2 0	3	− 0 10	+ 0 6	8	0 00	+ 1 5
ε Leporis	5	0	112 33				6	+ 0 07	− 0 4	5	+ 0 02	+ 0 1
α Aurigæ (*Capella*)	5	7	44 9				1	− 0 03	− 0 7	2	− 0 07	− 0 2
β Orionis (*Rigel*)	5	8	98 22				4	− 0 03	+ 0 7	7	0 00	+ 0 4
β Tauri	5	18	61 31	2	+ 0 01	+ 1 6	7	− 0 03	+ 0 3	3	+ 0 03	+ 1 3
δ Orionis	5	25	90 24				7	− 0 02	+ 0 1	3	+ 0 01	− 0 8
α Leporis	5	26	107 55				5	+ 0 03	− 0 3	2	+ 0 04	+ 0 5
ε Orionis	5	29	91 18				3	+ 0 03	+ 0 3	5	+ 0 08	+ 0 6
α Columbæ	5	35	124 9				5	− 0 11	+ 1 3	6	− 0 14	+ 2 0
α Orionis	5	48	82 37				12	0 00	− 0 2	4	+ 0 05	0 0
ν Orionis	6	0	75 13				12	− 0 02	+ 0 6	6	+ 0 04	+ 1 1

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1862			1863			1864		
			Obs	R A	P D	Obs	R A	P D	Obs	R A	P D
	h m						*s*				
μ Geminorum	6 15	67 25	1	− 0 08	− 0 1	7	+ 0 06	+ 0 5	8	+ 0 03	+ 1 9
α Argus (*Canopus*)	6 21	142 37							3	− 0 11	− 0 8
γ Geminorum	6 29	73 29	2	− 0 01	+ 1 4	12	− 0 03	+ 0 9	9	− 0 05	+ 1 7
51 (Hev) Cephei	6 35	2 45				8	+ 0 03	+ 0 6	15	+ 0 27	+ 0 5
α Can Maj (*Sirius*)	6 39	106 32				1	− 0 21	− 0 3	3	− 0 20	− 0 1
ε Canis Majoris	6 53	118 47				6	+ 0 01	− 1 1	7	+ 0 01	− 0 9
γ Canis Majoris	6 58	105 26				7	− 0 02	+ 0 5	4	− 0 0	+ 0 5
δ Geminorum	7 12	67 46				17	− 0 03	+ 0 9	10	+ 0 01	+ 1 7
α Gem (*Castor*)	7 26	57 49				12	0 00	+ 0 8	3	− 0 03	+ 1 4
α Can Min (*Procyon*)	7 32	84 26				15	+ 0 04	+ 1 9	7	+ 0 04	+ 2 1
β Gem (*Pollux*)	7 37	61 30				10	+ 0 04	+ 0 9	6	+ 0 05	+ 1 5
6 Cancri	7 55	61 49				9	− 0 04	+ 1 5	4	− 0 03	+ 2 1
15 Argûs	8 2	113 55				6	+ 0 07	+ 0 5	9	0 00	+ 0 2
η Cancri	8 25	69 6				8	+ 0 05	+ 0 2	9	+ 0 04	+ 1 4
ε Hydræ	8 40	83 5				12	− 0 06	+ 1 4	6	− 0 04	+ 0 6
ι Ursæ Majoris	8 50	41 25							4	+ 0 06	+ 0 2
83 Cancri	9 11	71 43				13	+ 0 14	+ 0 6	4	+ 0 02	+ 0 8
ι Argus	9 13	148 42							3	+ 0 12	+ 4 8
α Hydræ	9 21	98 4				13	0 00	+ 0 3	6	+ 0 01	+ 0 3
θ Ursæ Majoris	9 24	37 42							2	+ 0 06	+ 0 6
ε Leonis	9 38	65 36				12	+ 0 01	+ 0 7	8	− 0 02	+ 1 4
π Leonis	9 53	81 18				13	+ 0 01	+ 0 1	10	0 00	+ 0 1
α Leonis (*Regulus*)	10 1	77 22				20	− 0 02	+ 0 4	14	− 0 01	+ 0 3
γ Leonis	10 12	69 28				20	+ 0 05	+ 0 7	12	− 0 04	+ 1 1
ρ Leonis	10 26	79 59				12	− 0 06	+ 0 3	10	− 0 03	+ 0 5
η Argus	10 40	148 58							5	− 0 06	+ 3 1
l Leonis	10 42	78 44				11	+ 0 02	+ 0 5	11	+ 0 02	+ 0 8
α Ursæ Majoris	10 55	27 31							3	− 0 01	+ 0 4
χ Leonis	10 58	81 55				8	− 0 01	− 0 7	11	+ 0 03	− 0 1
o Leonis	11 7	68 44				11	− 0 05	+ 0 2	10	− 0 02	+ 0 7
o Crateris	11 12	104 9				13	+ 0 05	− 1 0	8	+ 0 04	− 0 8
υ Leonis	11 30	90 4				13	− 0 01	+ 1 0	13	− 0 01	+ 1 3
β Leonis	11 42	74 40				6	+ 0 04	+ 1 0	11	+ 0 02	+ 0 9
γ Ursæ Majoris	11 47	35 33							1	− 0 10	− 0 1
ε Corvi	12 3	111 51	3	− 0 08	+ 1 0	5	− 0 02	+ 0 7	8	+ 0 03	+ 0 1

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1862 Obs	1862 R A	1862 P D	1863 Obs	1863 R A	1863 P D	1864 Obs	1864 R A	1864 P D
	h m						s				
η Virginis	12 13	89 51				4	+ 0.03	+ 1.3	6	+ 0.05	+ 0.9
α Crucis	12 19	152 20							2	+ 0.39	+ 3.8
β Corvi	12 27	112 38	3	+ 0.10	+ 0.5	5	+ 0.10	− 0.2	4	+ 0.14	− 1.0
γ Virginis	12 35	90 42				1	− 0.06	− 3.7			
12 Canum Venat.	12 50	50 56				5	− 0.01	+ 1.2	11	+ 0.03	+ 0.9
θ Virginis	13 3	94 48				5	− 0.02	+ 0.8	11	− 0.02	+ 0.6
α Virginis (*Spica*)	13 18	100 27	2	+ 0.09	+ 1.8	9	− 0.01	− 0.4	14	+ 0.01	0.0
3 Virginis	13 28	89 54	2	− 0.01	+ 2.5	12	− 0.05	+ 1.9	15	+ 0.05	+ 1.5
η Ursæ Majoris	13 42	40 0	1	+ 0.08	+ 1.5				3	− 0.07	+ 0.3
η Boötis	13 48	70 55	2	− 0.06	− 0.2	9	− 0.04	+ 0.5	13	− 0.01	+ 0.9
τ Virginis	13 55	87 47	1	+ 0.04	+ 0.1	5	0.00	− 0.7	13	+ 0.02	− 0.3
α Boötis (*Arcturus*)	14 9	70 6	4	+ 0.01	+ 0.6	5	+ 0.02	+ 1.3	6	+ 0.05	+ 0.9
ρ Boötis	14 26	59 2	5	− 0.07	+ 1.6	6	− 0.07	+ 1.4	8	− 0.07	+ 1.1
α Centauri (2nd)	14 30	150 16							2	− 1.05	+ 15.1
ε Boötis	14 39	62 31	3	+ 0.05	+ 0.8	5	− 0.04	+ 0.3	11	+ 0.05	+ 0.4
α Libræ	14 43	105 28	2	− 0.13	+ 0.1	4	− 0.05	− 0.2	12	+ 0.02	− 0.2
β Ursæ Minoris	14 51	15 17	2	− 0.23	+ 0.3				1	− 0.26	− 1.1
ψ Boötis	14 59	62 31	3	+ 0.01	+ 2.2	5	− 0.06	+ 0.7	8	− 0.07	+ 1.6
β Libræ	15 10	98 53	3	− 0.13	+ 0.5	6	+ 0.07	0.0	7	− 0.01	− 0.1
α Coronæ Borealis	15 29	62 40	6	+ 0.09	+ 0.7	3	0.00	+ 0.3	5	+ 0.05	+ 1.3
α Serpentis	15 38	83 8	2	− 0.02	+ 0.6	6	+ 0.04	− 0.3	7	+ 0.02	+ 0.1
3 Ursæ Minoris	15 49	11 47	1	+ 0.21	+ 0.3				2	+ 0.20	+ 0.4
β^1 Scorpii	15 57	109 26	13	+ 0.01	+ 0.7	6	+ 0.06	− 0.1	7	0.00	− 0.3
δ Ophiuchi	16 7	93 20	1	0.00	+ 2.7	1	+ 0.27	+ 1.0	5	+ 0.05	+ 1.0
α Scorpii (*Antares*)	16 21	116 7	8	0.00	+ 0.3	7	+ 0.03	− 0.9	10	− 0.02	− 0.3
3 Herculis	16 36	58 9	9	0.00	+ 1.9	5	− 0.02	+ 1.8	7	+ 0.01	+ 1.9
κ Ophiuchi	16 51	80 25	9	− 0.03	− 0.1	8	+ 0.10	+ 0.4	7	− 0.11	+ 0.5
ε Ursæ Minoris	17 0	7 45	2	+ 0.04	+ 1.9				6	− 0.25	+ 1.6
α Herculis Var 1	17 8	75 27	5	+ 0.03	0.0	9	+ 0.06	+ 1.2	8	+ 0.02	+ 1.0
θ Ophiuchi	17 14	114 52	4	− 0.08	+ 1.7	9	+ 0.03	+ 1.3	5	+ 0.03	+ 1.0
α Ophiuchi	17 29	77 20	8	+ 0.03	+ 0.8	5	+ 0.02	+ 1.4	5	− 0.02	+ 0.5
μ Herculis	17 41	62 19	3	− 0.02	+ 0.5				2	+ 0.03	+ 0.6
γ Draconis	17 53	38 30	1	+ 0.21	+ 1.2				1	− 0.01	+ 0.8
μ Sagittarii	18 6	111 5	1	+ 0.04	− 1.5	9	+ 0.03	0.0	4	+ 0.03	− 0.1
δ Ursæ Minoris	18 17	3 24				9	+ 0.10	− 0.9	5	+ 0.11	− 0.5

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1862			1863			1864		
	h m	° ′	Obs	R A	P D	Obs	R A	P D	Obs	R A	P D
α Lyræ (Vega)	18 32	51 21	2	− 0 8	0 0	6	0 00	+ 1 1	4	0 00	+ 1 8
β Lyræ Var 1	18 45	56 18	5	+ 0 07	+ 0 2	4	+ 0 02	+ 0 1	5	− 0 03	+ 0 2
ζ Aquilæ	18 59	76 20	3	+ 0 10	+ 0 7	7	+ 0 04	+ 1 1	7	+ 0 05	+ 1 8
ω Aquilæ	19 11	78 39	2	− 0 13	+ 0 1	5	+ 0 01	+ 0 5	1	− 0 03	0 0
δ Aquilæ	19 18	87 10	3	0 00	− 0 2	4	− 0 02	+ 0 4	7	− 0 01	+ 1 3
h Sagittarii	19 28	115 11	3	+ 0 07	+ 1 2	2	+ 0 05	+ 1 9	5	+ 0 11	+ 1 5
γ Aquilæ	19 40	79 43	2	− 0 09	+ 1 1	5	− 0 0	+ 0 2	3	− 0 06	+ 0 8
α Aquilæ (*Altair*)	19 44	81 29	2	+ 0 02	− 0 3	2	+ 0 01	+ 0 8	2	+ 0 01	0 0
β Aquilæ	19 49	83 56	2	+ 0 04	− 0 2	5	− 0 01	+ 0 7	4	− 0 03	+ 1 0
λ Ursæ Minoris	20 1	1 6				3	− 0 72	− 0 1	4	− 0 38	0 0
α Capricorni	20 10	102 55	3	+ 0 03	+ 0 1	7	+ 0 01	+ 0 2	7	− 0 03	+ 0 1
α Pavonis	20 15	147 10				1	− 0 47	+ 3 0	3	− 0 11	+ 1 8
ρ Capricorni	20 21	108 16	4	+ 0 06	+ 0 3	12	+ 0 03	+ 0 7	7	+ 0 08	+ 0 3
α Cygni	20 37	45 1	5	− 0 01	+ 1 1	1	− 0 02	+ 1 5	5	− 0 05	+ 1 3
32 Vulpeculæ	20 49	62 2	2	+ 0 02	+ 1 3	2	− 0 07	− 0 1	9	− 0 01	+ 1 0
61 Cygni (1st)	21 1	51 5				1	+ 0 21	+ 1 8	3	+ 0 26	+ 0 7
ζ Cygni	21 7	60 20	5	− 0 03	+ 0 5	6	− 0 01	+ 0 9	9	+ 0 03	+ 1 2
α Cephei	21 15	28 0							3	+ 0 01	+ 0 6
β Aquarii	21 24	96 10	1	+ 0 03	+ 1 1	11	+ 0 01	+ 0 9	14	+ 0 05	+ 1 2
β Cephei	21 27	20 2							3	+ 0 29	− 0 9
ε Pegasi	21 37	80 45	5	− 0 03	− 0 3	6	− 0 0	+ 0 7	10	− 0 02	+ 0 9
16 Pegasi	21 47	64 43	6	+ 0 05	− 0 3	8	− 0 06	+ 1 6	9	− 0 09	+ 1 7
α Aquarii	21 59	90 59	7	− 0 04	+ 0 1	5	0 00	+ 0 8	10	+ 0 01	+ 0 7
α Gruis	22 0	137 37							1	− 0 06	+ 2 4
θ Aquarii	22 10	98 28	5	+ 0 01	0 0	1	0 00	+ 0 7	10	+ 0 01	+ 1 0
η Aquarii	22 28	90 49	16	+ 0 04	+ 0 8	9	+ 0 01	+ 1 5	9	0 00	+ 1 3
ζ Pegasi	22 35	79 53	10	+ 0 03	0 0	4	− 0 01	+ 1 1	5	+ 0 07	+ 0 6
α Pis. A. (*Fomalhaut*)	22 50	120 21	13	+ 0 01	+ 0 1	8	+ 0 05	+ 0 6	7	+ 0 08	+ 0 7
α Pegasi (*Markab*)	22 58	75 32	16	− 0 02	+ 1 1	1	− 0 01	+ 2 1	4	− 0 06	+ 1 8
γ Piscium	23 10	87 28	18	− 0 02	0 0	8	− 0 03	+ 1 0	4	0 00	+ 0 4
κ Piscium	23 20	89 30	12	− 0 05	+ 0 7	12	− 0 01	+ 1 2	8	0 00	+ 1 4
ι Piscium	23 33	85 7	10	− 0 03	− 0 6	11	− 0 01	+ 0 4	7	− 0 02	+ 0 6
γ Cephei	23 34	13 8							3	+ 0 36	+ 1 9
δ Sculptoris	23 42	118 53	7	− 0 03	+ 1 3	13	+ 0 01	+ 1 7	11	0 00	+ 1 9
ω Piscium	23 52	85 54	9	− 0 03	− 0 3	5	− 0 05	+ 0 5	11	− 0 06	+ 0 9

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		D fP I	1	1
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	71	M 1 fR A		
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SEPARATE RESULTS

OF

OBSERVATIONS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1862.

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude	
					h	m							
1	21 Andromedæ α	Sep	20	M	0	1	15 69		61	40	19 0		
		Oct	10	S		1	1 44			40	18 1		
			11	S		1	15 49	6		40	18 8		
			13	S		1	1 45			40	18 1		
2	47374 Lalande	Oct	21	R	0	2	51 21	4	93	19	45 5		
			25	R		2	51 09			19	45 3		
			27	R		2	51 01	5		19	45 8		
			28	R		2	51 08	5		19	45 5		
3	88 Pegasi γ	Sep	11	R	0	6	7 93		75	35	2 3		
		Dec	3	M		6	7 91			35	1 8		
4	48 Taylor	Aug	26	S	0	10	42 55		89	4	42 7		
		Sep	6	R		10	42 48	5		4	43 9		
			18	M		10	42 55			4	43 3		
		Oct	8	S		10	42 73	6		4	42 0		
			9	S		10	42 59			4	42 3		
			10	S		10	42 56			4	43 9		
			11	S		10	42 41			4	44 4		
			13	S		10	42 62			4	43 7		
			14	S		10	42 46	5		4	41 6		
			15	S		10	42 55			4	44 1		
			16	R		10	42 43			4	43 9		
			17	R		10	42 58			4	41 6		
			23	R		10	42 51			4	44 0		
			25	R		10	42 5	4		4	44 0		
			27	R		10	42 43	6		4	44 6		
			28	R		10	42 18	6		4	43 0		
			31	R		10	42 47			4	42 9		
		Nov	1	M		10	42 39			4	44 1		
5	41 Piscium d	Aug	12	M	0	13	29 79		82	34	~~35 0~~		— — — 34 9
		Sep	8	R		13	29 86			34	35 0		
		Oct	6	S		13	29 96			34	33 2		
			7	S		13	29 94			34	33 6		
		Nov	3	M		13	29 87			34	34 5		
6	44 Piscium	Aug	26	S	0	18	19 92		88	49	28 7		
			27	S		18	19 57	5		49	28 2		

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
6	44 Piscium	Oct	7	S	0	18	19 82	4	88	49	28 2	
			9	S		18	19 57	5		49	28 5	
			10	S		18	19 83			49	29 1	
			16	R		18	19 72			49	30 3	
			23	R		18	19 72	5		49	30 7	
			25	R		18	19 81	6		49	29 3	
			27	R		18	19 74	6		49	29 3	
			28	R		18	19 72			49	28 9	
			31	R		18	19 62	5		49	30 0	
7	12 Ceti	Sep	10	R	0	22	59 79		94	43	13 6	
			22	S		22	9 79			43	11 8	
		Oct	31	R		22	59 73	5		43	13 6	
		Dec	1	M		22	59 74			43	13 2	
			2	M		22	59 75			43	13 3	
8	670 Lalande	Sep	6	R	0	23	3 04	5	85	54	13 6	
			16	M		23	3 00			54	11 4	7 0
			17	M		23	2 93			54	14 0	7 0
			30	M		23	2 76			54	15 1	
		Oct	1	S		23	3 05			54	12 6	
			2	S		23	3 00			54	13 2	
			4	S		23	2 97			54	13 1	
			6	S		23	3 22			54	13 0	
			11	S		23	3 13			54	13 4	
			14	S		23	2 92	5		54	13 3	
			15	S		23	3 27			54	13 8	
			17	R		23	3 19	3		54	15 2	
9		Nov	6	M	0	28	47 17		89	8	14 7	9 0
			11	M		28	47 14			8	13 7	9 0
			22	S		28	47 73			8	13 7	9 0
10	15 Ceti	Aug	27	S	0	31	1 09		91	15	16 4	
		Oct	9	S		31	1 13			15	4 6	
			16	R		31	1 15			15	17 8	
			17	R		31	1 25	3		15	18 1	
11	1097 Lalande	Nov	5	M	0	34	29 68		89	0	36 2	8 0
			7	M		34	29 68			0	35 5	8 0

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	′	″	
11	1097 Lalande	Nov	12	M	0	34	29 70		89	0	36 5	8 0
		Dec	10	M		34	29 85	5		0	34 8	8 0
12	1123 Lalande	Nov	22	S	0	3	35 68	5	89	5	41 0	8 5
			25	S		35	35 87	6		3	40 6	
13	16 Ceti β	Aug	26	S	0	36	39 52		108	44	38 8	
		Sep	15	R		36	39 55	5		44	42 2	
		Oct	8	S		36	39 57			44	40 3	
			31	R		36	39 63			44	41 2	
		Nov	20	S		36	39 61			44	40 0	
14	1198 Lalande	Nov	6	M	0	38	0 50		88	56	56 2	8 5
15	60 Piscium	Sep	30	M	0	40	15 36		84	0	48 2	
		Oct	1	S		40	15 48			0	46 4	
			2	S		40	15 47			0	46 1	
			4			40	15 47			0	46 1	
16	235 Taylor	Oct	21	R	0	41	8 87	4	85	25	47 5	
			27	R		41	8 77	6		25	47 2	
			28	R		41	8 82			25	17 1	
		Nov	3	M		41	8 81			25	46 9	
17	63 Piscium δ	Aug	27	S	0	41	31 25		83	9	59 3	
		Sep	9	R		41	31 52			10	0 7	
			10	R		41	31 41			10	0 0	
			13	R		41	31 51			9	59 9	
			16	M		41	31 45			10	0 6	
			17*	M		41	31 44			10	0 3	
			18	M		41	31 54			9	59 7	
			22	S		41	31 32	6		10	2 3	
			23	M		41	31 43	6		10	0 9	
		Oct	6	S		41	31 78	5		9	58 4	
		Dec	1	M		41	31 52			10	0 6	
18		Nov	4	M	0	41	33 88		89	7	14 9	9 5
			7	M		41	33 98			7	14 4	9 0
			11	M		41	33 97			7	11 3	9 0

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
19	20 Ceti	Sep	1	P	0	45	57 53	6	91	53	41 6	
			6	R		45	57 33	6		53	40 3	
			8	R		45	57 43	4		53	40 6	
			11	R		45	57 39			53	39 5	
			12	R		45	57 25	5		53	39 2	
			15	R		45	57 31	5		53	40 8	
			23	M		45	57 09	4		53	40 5	
			27	M		45	57 12	5		53	40 7	
			30	M		45	57 25	4		53	41 9	
		Oct	3	S		45	57 40			53	39 8	
			23	R		45	57 33			53	41 1	
			25	R		45	57 34	3		53	39 9	
			31	R		45	57 29	6		53	40 2	
		Nov	1	M		45	57 32			53	40 9	
20	0 806 W B E	Nov	5	M	0	46	33 67		88	50	25 0	10 0
			22	S		46	33 72	5		50	24 7	10 0
			25	S		46	33 78	6		50	25 9	
21	2 Ursæ Minoris	Sep	10	R	0	50	30 17	3	4	29	9 4	
22	1638 Lalande	Oct	28	R	0	50	31 39		88	57	43 6	
		Nov	3	M		50	31 34			57	44 1	7 5
			6	M		0	34 36			57	43 4	8 0
23	1639 Lalande	Nov	7	M	0	50	36 19	6	88	39	13 1	8 5
			11	M		50	36 20	5		39	12 0	8 5
			13	M		50	36 15			39	13 7	
24	1784 Lalande	Oct	31	R	0	54	52 73		88	13	8 7	
		Nov	12	M		54	52 86			13	8 2	8 0
			15	M		54	52 77			13	6 2	8 0
25	71 Piscium ε	Aug	28	S	0	55	47 18		82	51	13 2	
		Sep	9	R		55	46 99			51	13 3	
			10	R		55	46 93	5		51	13 3	
		Nov	4	M		55	46 90			51	12 2	
26	26 Ceti	Sep	11	R	0	56	42 92	6	89	22	25 7	
			12	R		56	42 94			22	24 8	

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Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
26	26 Ceti	Sep	13	R	0	56	42 93	6	89	22	25 2	
			15	R		56	42 83			22	26 9	
		,	16	M		56	42 83	6		22	25 6	
			18	M		56	43 01	5		22	26 3	
			22	S		56	42 83			22	27 0	
			23	M		56	42 82			22	27 6	
		Oct	11	S		56	43 10			22	26 3	
			13	S		56	42 94			22	25 9	
			14	S		56	42 99			22	26 5	
			15	S		56	43 01			22	26 0	
			16	R		56	42 78			22	27 2	
			21	R		56	42 98			22	26 2	
			23	R		56	42 86			22	26 1	
			27	R		56	42 98			22	26 7	
27	1879 Lalande	Oct	28	R	0	57	37 82		88	25	33 8	7 8
		Nov	5	M		57	37 70			25	34 5	7 5
		,	14	M		57	37 73			25	33 5	7 5
28	0 1031 W B L	Nov	6	M	0	59	1 88		88	6	27 3	9 0
			22	S		59	1 75	4		6	28 4	9 0
		Dec	2	M		59	1 71			6	27 4	9 0
29	29 Ceti	Nov	29	S	1	0	52 70		88	43	47 2	
		Dec	3	M		0	52 78			43	45 9	7 0
30	80 Piscium e	Aug	26	S	1	1	15 71		85	4	51 2	
			27	S		1	15 66			4	52 8	
		,	28	S		1	15 99			4	52 7	
		Sep	1	P		1	15 76	6		4	53 8	
			6	R		1	15 75	6		4	52 1	
			8	R		1	15 73	6		4	52 7	
			9	R		1	15 78			4	53 4	
		,	11	R		1	15 79	5		4	53 7	
		,	12	R		1	15 70	5		4	51 7	
			13	R		1	15 82	6		4	53 0	
		Oct	7	S		1	15 72			4	51 4	
			8	S		1	15 77	3		4	51 0	
		,	9	S		1	15 73			4	52 1	
			10	S		1	15 72			4	53 6	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Mangalore
					h	m	s					
30	80 Piscium e	Oct	14	S	1	1	15 74		85	4	53 0	
			15	S		1	16 05	4		4	53 3	
			17	R		1	15 73	6		4	53 4	
31	I 15 W B E	Nov	11	M	1	2	53 51		87	39	17 6	9 0
32	2089 Lalande	Oct	28	R	1	3	21 30		88	10	51 2	8 3
		Nov	12	M		3	21 16			10	53 3	8 5
			15	M		3	21 18			10	52 0	8 5
33	33 Ceti	Oct	31	R	1	3	27 51		88	17	23 3	
		Nov	1	M		3	27 52			17	23 9	
			13	M		3	27 61			17	23 5	
34	I 101 W B E	Nov	5	M	1	7	39 50		87	54	36 6	9 0
			6	M		7	39 60			54	36 2	9 0
			22	S		7	39 91			54	37 3	9 0
35		Oct	28	R	1	9	9 99	6	87	42	42 1	10 0
		,	31	R		9	10 02	5		42	43 6	
		Dec	1	M		9	9 84	5		42	42 8	10 0
36	89 Piscium *f*	Sep	30	M	1	10	40 85		87	6	49 6	
		Oct	1	S		10	40 95	6		6	46 8	
		,	2	S		10	40 97			6	47 3	
		,,	3	S		10	40 90			6	47 7	
			4	S		10	40 77			6	47 0	
		,	7	S		10	40 98			6	46 5	
			8	S		10	41 17			6	46 2	
			9	S		10	40 94			6	46 3	
			10	S		10	40 78			6	48 2	
			11	S		10	41 06			6	47 1	
			15	S		10	41 05			6	48 1	
			16	R		10	40 90			6	48 2	
			18	R		10	41 13			6	48 4	
37	43 Ceti	Oct	1	S	1	15	31 17	6	91	10	19 9	
			2	S		15	31 38			10	20 5	
			3	S		15	31 56			10	21 3	
			4	S		15	31 49			10	20 6	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
37	43 Ceti	Oct	9	S	1	15	31 34		91	10	20 1	
			13	S		15	31 54			10	21 6	
			15	S		15	31 29			10	22 5	
			16	R		15	31 41			10	22 0	
38	45 Ceti θ	Oct	27	R	1	17	7 61	4	98	53	47 3	
			31	R		17	7 54	5		53	47 2	
		Nov	26	S		17	7 47			53	47 2	
			28	S		17	7 32			53	48 5	
39	93 Piscium ρ	Oct	8	S	1	18	49 25		71	32	49 3	
40	465 Taylor	Sep	30	M	1	19	23 47	6	91	7	~~3 0~~ --- 29	
		Nov	22	S		19	23 68			7	2 4	7 0
			25	S		19	23 76	4		7	2 9	
41	98 Piscium μ	Aug	26	S	1	22	57 55		84	34	6 5	
			27	S		22	57 33	3		31	6 8	
		Sep	9	R		22	57 34	5		34	8 3	
		,,	13	R		22	57 52	5		34	7 7	
			16	M		22	57 28			34	8 2	
			23	M		22	57 31			31	7 9	
			27	M		22	57 17			31	8 1	
42	99 Piscium η	Sep	10	R	1	24	6 13		75	22	1 2	
			11	R		24	6 16			22	1 0	
		Oct	7	S		21	6 06			21	58 9	
			9	S		24	6 23			22	0 1	
			28	R		24	6 19			22	0 9	
		Nov	20	S		21	6 18			22	1 4	
			24	S		24	6 20	6		22	1 4	
43	514 Taylor	Dec	1	M	1	28	27 10		73	16	27 0	6 0
			2	M		28	26 98			16	27 6	6 0
44	106 Piscium ν	Aug	26	S	1	34	15 13		85	12	42 7	
			28	S		34	15 22			12	42 8	
		Sep	6	R		31	15 19	2		12	43 3	
			8	R		34	15 20			12	43 3	
			10	R		34	15 04			12	43 9	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No. of Wires	Mean Polar Distance 1882			Magnitude
					h	m	s					
44	106 Piscium ν	Sep	11	R	1	34	15.02		85	12	43.7	
			12	R		34	15.15	6		12	43.2	
			13	R		34	15.03	6		12	43.5	
			15	R		34	15.15	6		12	44.1	
			16	M		34	15.10			12	43.1	
			17	M		34	15.11			12	43.5	
			18	M		34	15.26			12	43.9	
			23	M		34	15.13			12	44.5	
		Nov	12	M		34	15.14			12	43.3	
			13	M		34	15.11			12	45.0	
			20	S		34	14.99			12	43.0	
			21	S		34	14.98	5		12	44.7	
			28	S		34	15.27			12	44.3	
		Dec	3	M		34	15.06			12	43.8	
			4	M		34	15.08			12	43.3	
			5	M		34	15.18			12	44.1	
			10	M		34	15.12			12	44.3	
45	590 Taylor	Sep	10	R	1	41	17.31		87	0	18.7	
			11	R		41	17.26			0	18.9	
			17	M		41	17.02	4		0	18.0	
			18	M		41	17.17			0	17.5	
46	111 Piscium ξ	Sep	6	R	1	46	21.86	4	87	29	44.5	
			8	R		46	21.66			29	42.0	
			15	R		46	21.78	5		29	43.7	
			16	M		46	21.17			29	43.7	
			23	M		46	21.78	6		29	46.1	
47	6 Arietis β	Aug	28	S	1	47	1.03	4	69	52	6.4	
		Sep	1	I		47	1.26			52	5.0	
			10	R		47	1.30			52	5.9	
			11	R		47	1.29			52	6.0	
			12	R		47	1.37			52	6.3	
			13	R		47	1.31			52	6.5	
		Nov	4	M		47	1.13	5		52	6.8	
			5	M		47	1.30			52	6.1	
			11	M		47	1.26			52	5.9	
			12	M		47	1.33			52	6.6	
			22	S		47	1.21			52	6.1	

Separate Results of Madras Meridian Circle Observations in 1862

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
						h	m	s		°	′	″	
	47	6 Arietis β	Nov	21	S	1	17	1 31		69	52	6 2	
				26	S		17	1 35			52	6 4	
				28	S		17	1 31			52	6 7	
			Dec	1	M		17	1 33			52	6 6	
	48	13 Arietis α	Sep	1	I	1	59	24 05		67	11	32 1	
				15	R		59	23 93			11	32 8	
			Oct	9	S		59	23 91			11	30 0	
				10	S		59	23 89			11	32 3	
			Nov	1	M		59	24 00			11	31 9	
				8	M		59	23 82			11	30 7	
				20	S		59	23 97			11	29 8	
				29	S		59	23 89			11	32 0	
			Dec	1	M		59	23 92			11	32 1	
				5	M		59	24 03			11	32 5	
				11	M		59	23 98			11	31 8	
	49	21 Arietis	Nov	11	M	2	7	53 12		65	35	54 2	6 5
			Dec	1	M		7	53 36			35	56 0	7 0
				5	M		7	53 10			35	55 6	
	50	67 Ceti	Oct	31	R	2	10	5 93		97	3	35 1	
			Nov	8	M		10	6 00			3	35 4	
				22	S		10	6 03			3	35 8	
				26	S		10	6 02			3	35 7	
				29	S		10	6 06			3	37 2	
			Dec	10	M		10	5 97			3	36 6	
	51	22 Arietis θ	Oct	[illegible]	S	2	10	27 15		70	44	20 3	
22 54	52	68 Ceti ο Var 1	Oct	28	R	2	12	~~22 55~~		93	36	21 5	5 5
			Nov	3	M		12	22 10	4		36	22 4	5 5
22 60				4	M		12	~~22 62~~			36	22 3	6 0
	53	73 Ceti ξ^2	Nov	11	M	2	20	49 56	5	82	9	37 7	
				12	M		20	49 39			9	37 7	
				22	S		20	49 57			9	38 2	
				25	S		20	49 52			9	38 1	
				29	S		20	49 57			9	39 6	
			Dec	1	M		20	49 48			9	37 5	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No. of Wires	Mean Polar Distance 1862			Magnitude	
					h	m	s		°	′	″		
54	26 R I L	Nov	7	M	2	21	56 85	5	3	33	29 0		
			8	M		21	~~56 70~~ 7 84	3		33	29 0		57 93
			15	M		21	58 61	7		33	30 5 29 5		
55	31 Arietis	Dec	2	M	2	29	6 58		78	9	11 0		
			3	M		29	6 60	5		9	11 1		
56	32 Arietis ν	Sep	11	I	2	30	59 20		68	38	16 1		
57	86 Ceti γ	Nov	8	M	2	36	9 07		87	20	51 4		
			25	S		36	9 13			20	53 0		
		Dec	6	M		36	9 09			20	51 9		
			10	M		36	9 11			20	3 1		
58	42 Arietis π	Sep	11	I	2	41	35 86		73	6	15 1		
59	48 Arietis ε	Oct	10	S	2	1	19 54		69	12	0 4		
		Nov	5	M		1	19 64			12	50 5		
60	92 Ceti α	Nov	8	M	2	55	4 02		86	27	13 4		
			25	S		55	3 99	5		27	14 5		
61	33 R I I	Dec	1	M	3	0	16 70	5	5	35	17 0		
			2	M		0	17 10	3		35	17 4 17 2		
62	57 Arietis δ	Nov	5	M	3	3	14 63		70	17	3 8		
			6	M		3	14 58			47	53 1		
63	58 Arietis ζ	Dec	3	M	3	6	58 55	4	69	28	11 8		
			4	M		6	58 22			28	10 8		
64		Nov	29	S	3	12	18 91	5	130	58	40 2	8 0	
65	33 Persei α	Dec	11	M	3	14	29 21		40	38	1 7		
66	17 Tauri	Nov	6	M	3	36	41 22		66	19	25 1		
			7	M		36	41 23			19	25 2		
67		Nov	29	S	3	38	1 98		136	13	17 3	8 0	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	'	"	
68	25 Tauri η	Nov	25	S	3	39	17 11		66	19	30 1	
		Dec	6	M		39	17 05			19	29 0	
			11	M		39	17 13			19	29 5	
69	34 Eridani γ	Dec	2	M	3	51	35 13		103	51	11 0	
			6	M		51	35 52			51	12 5	
70		Nov	29	S	3	53	0 15	5	128	25	17 3	10 0
71	35 Tauri λ Var 1	Nov	25	S	3	53	2 16		77	51	10 5	
72	37 Tauri A^1	Dec	4	M	3	56	32 13		68	17	55 8	
			5	M		56	32 50			17	[illegible]	
73		Nov	29	S	4	3	39 17	5	116	56	17 4	9 0
74	74 Tauri ϵ	Nov	7	M	4	20	33 86		71	7	45 0	
			8	M		20	33 79			7	44 7	
		Dec	4	M		20	33 58			7	46 3	
			8	M		20	33 76			7	45 3	
75	87 Tauri α	Dec	8	M	4	28	0 29		73	46	18 5	
76	3 Aurigæ ι	Dec	8	M	4	48	0 57		57	3	23 5	
			9	M		48	0 76			3	25 1	
77	109 Tauri n	Dec	5	M	5	10	59 17		68	3	0 1	6 0
78	112 Tauri β	Nov	8	M	5	17	34 31		61	30	17 8	
		Dec	5	M		17	31 09			30	50 1	
79	40 R P I	Dec	8	M	5	18	8 12	3	4	3	10 3	
80	123 Tauri	Nov	8	M	5	29	23 99		68	56	13 2	
81		Dec	8	M	5	19	21 27	3	63	50	16 9	
82	43 R P I	Dec	9	M	5	51	7 35	3	3	11	23 0	
83	13 Geminorum μ	Dec	9	M	6	14	36 60		67	25	[illegible]	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Stars		Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
						h	m	s					
81	21 Geminorum γ		Dec	8	M	6	29	41 39		73	29	13 2	
				9	M		29	44 31			29	11 9	
85	68 Geminorum		Dec	9	M	7	25	13 71		73	52	50 3	
86	81 Geminorum g		Dec	8	M	7	38	7 85		71	9	24 2	
				9	M		38	7 81			9	24 1	
87	70 R P L	s p	Oct	7	S	9	45	55 81	6	5	25	11 1	
88	72 R P L	s p	Sep	6	R	10	9	0 83	5	5	3	3 2	
		s p	Oct	2	S		9	0 22	7		3	3 2	
		s p		13	S		9	0 92	5		3	3 7	
		s p		15	S		9	0 11	3		3	1 5	
		s p		16	R		9	0 51	3		3	2 8	
		s p	Nov	3	M		9	0 73	5		3	3 1	
		s p		5	M		9	0 62	5		3	2 8	
		s p		6	M		9	1 06	3		3	2 8	
		s p		11	M		9	1 20	5		3	2 0	
		s p		13	M		9	0 19	3		3	2 1	
89	79 R P L	s p	Oct	28	R	10	51	35 00	3	1	30	15 1	
90	89 R P L	s p	Sep	10	R	11	57	41 81	3	3	38	2 3	
		s p	Nov	7	M		57	11 59	5		38	52 2	
		s p	Dec	1	M		57	15 57	3		38	51 5	
91	2 Corvi ε		June	3	M	12	3	1 90	6	111	51	7 8	
				4	M		3	1 71			51	9 0	
				5	M		3	1 81			1	8 1	
92	92 R P L	s p	Nov	15	M	12	12	50 01	3	2	17	19 5	
93	93 R P L	s p	Nov	4	M	12	11	20 31	3	1	32	7 8	
94	21 Virginis q		June	7	M	12	26	39 19	6	98	11	26 0	
95	9 Corvi β		June	3	M	12	27	8 70	4	112	38	0 0	
				4	M		27	8 49			38	0 4	
				5	M		27	8 19			38	1 3	

Separate Results of Madras Meridian Circle Observations in 1862

	Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
	96	67 Virginis α	June 3	M	13	17	55 68	6	100	26	25 2	
			5	M		17	55 57			26	26 3	
1975–	97	103 R P L s p	Nov 8	M	13	20	~~20 71~~ 19 75	3	4	31	28 7	
	98	79 Virginis ζ	June 4	M	13	27	39 80	6	89	53	22 7	
			„ 9	R		27	39 82			53	22 4	
	99	85 Ursæ Majoris η	June 9	R	13	42	6 02		39	59	40 7	
	100	8 Bootis η	June 7	M	13	48	6 50	4	70	51	31 3	
			10	R		48	6 69			51	31 6	
	101	93 Virginis τ	June 16	S	13	54	37 51		87	47	10 1	
11 79	102	105 R P L	June 5	M	14	4	[illegible]	5	3	31	51 2	
	103	16 Bootis α	June 7	M	14	9	22 13		70	5	52 4	
			„ 10	R		9	22 02			5	52 2	
			16	S		9	22 07			5	51 0	
			21	S		9	21 91			5	51 7	
	104	100 Virginis λ	June 9	R	14	11	38 72		102	44	2 4	
	105	25 Bootis ρ	June 2	I	14	25	2 99	6	59	1	18 7	
			3	M		25	52 70	3		1	17 9	
			7	M		25	52 93			1	16 8	
			10	R		25	52 93			1	17 8	
			„ 16	S		25	52 58			1	17 1	
	106	5 Libræ	June 9	R	14	38	21 39		104	52	32 9	
	107	36 Bootis ε	June 5	M	14	38	57 8		62	20	31 4	
			„ 10	R		38	57 63			20	31 7	
			19	S		38	57 59			20	33 6	
	108	9 Libræ α^2	May 31	P	14	43	14 70		105	27	59 0	
			June 7	M		43	14 63	6		27	56 7	
	109	7 Ursæ Minoris β	June 19	S	14	51	8 89		15	16	51 9	
			July 8	S		51	8 13			16	50 1	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No. of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	′	″	
110	43 Bootis ψ	June	2	P	14	58	31.97	6	62	30	46.1	
			3	M		58	31.95	6		30	46.7	
			4	M		58	32.16	5		30	46.2	
111	24 Libræ ι	June	9	R	15	4	21.54	6	109	16	1.9	
			10	R		4	21.50			16	1.3	
112	111 R. P. L.	June	5	M	15	5	58.16	5	5	30	59.3	
			19	S		5	58.05	5		31	0.7	
113	27 Libræ β	May	31	P	15	9	34.93		98	52	18.7	
		June	16	S		9	34.81			52	16.1	
			21	S		9	34.90			52	16.1	
114	32 Libræ ξ[1]	June	9	R	15	20	28.60	6	106	13	57.4	
			10	R		20	28.69			13	57.1	
115	114 R. P. L. s.p.	Dec	2	M	15	23	16.62	1	2	14	37.9	
116	5 Coronæ Borealis α	May	31	P	15	28	50.84	6	62	49	9.1	
		June	4	M		28	50.72			49	10.0	
			12	R		28	50.70			49	7.2	
			16	S		28	50.88			49	7.4	
			21	S		28	50.84			49	8.7	
		July	1	R		20	50.68			49	7.4	
117	24 Serpentis α	May	31	P	15	37	28.38	6	83	8	17.6	
		July	8	S		37	28.11	6		8	15.2	
118	115 R. P. L.	June	5	M	15	49	0.87	5	4	43	35.0	
119	16 Ursæ Minoris ζ	July	22	M	15	19	4.15		11	46	58.0	
120	7 Scorpii δ	July	8	S	15	52	10.11		112	13	32.7	
121	8 Scorpii β	June	1	M	15	57	24.94		109	25	29.6	
			9	R		57	25.00			25	28.6	
			10	R		57	25.01			25	29.1	
			19	S		57	24.94	6		25	29.8	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	′	″	
121	8 Scorpii β^1	July	1	R	15	57	25 01		109	25	28 7	
			8	S		57	25 17	5		25	29 5	
			16	R		57	25 01	5		25	29 6	
			18	R		57	24 96			25	28 9	
			23	M		57	24 91			25	28 5	
			24	M		57	24 97			25	29 5	
			25	M		57	24 99			25	28 7	
			26	M		57	24 90			25	29 1	
			28	S		57	25 06	5		25	29 3	
122	1 Ophiuchi δ	June	9	R	16	7	6 90		93	20	13 0	
123	21 Scorpii α	June	10	R	16	20	57 06	1	116	7	21 3	
			12	R		20	57 00			7	19 8	
			13	R		20	56 93			7	20 7	
		July	15	R		20	56 98			7	20 8	
			18	R		20	57 08			7	21 3	
			26	M		20	56 94			7	21 1	
			30	S		20	56 99			7	20 9	
		Aug	5	M		20	57 03			7	19 0	
124	S Ophiuchi Var 3	Aug	2	S	16	26	18 98		106	52	3 1	
125	40 Herculis ζ	July	12	S	16	36	4 97		58	8	15 1	
			15	R		36	5 09			8	13 9	
			16	R		36	5 07			8	11 5	
			22	M		36	5 10			8	11 1	
			23	M		36	5 04			8	13 6	
			25	M		36	5 1			8	13 7	
			26	M		36	5 08	1		8	11 5	
			28	S		36	4 97			8	13 0	
			30	S		36	5 08			8	13 8	
126	27 Ophiuchi κ	July	3	R	16	51	8 38	6	80	21	27 2	
			12	S		51	8 29			21	28 1	
			16	R		51	8 22			21	26 7	
			18	R		51	8 23			21	27 8	
			24	M		51	8 28	5		21	27 1	
			28	S		51	8 29			21	28 0	
			29	S		51	8 19			21	27 0	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
126	27 Ophiuchi κ	Aug	1	S	16	51	8 08		80	24	28 0	
			2	S		51	8 17			24	28 4	
127	R Ophiuchi Var 2	July	28	S	16	59	50 78		105	54	19 6	
		Aug	1	S		59	50 12			54	20 3	
			2	S		59	50 57			54	20 3	
128	22 Ursæ Min ε *s p*	Dec	8	M	17	0	14 43	3	7	44	28 3	
	s p	"	9	M		0	14 41	5		44	31 2	
129	64 Herculis α Var 1	July	3	P	17	8	21 41		75	26	8 3	
			12	S		8	21 31			26	59 2	
			22	M		8	21 26			26	58 6	
			29	S		8	21 38			26	58 8	
			31	S		8	21 20			26	58 2	
130	42 Ophiuchi θ	July	3	P	17	13	31 02	6	114	51	28 3	
			8	S		13	32 13			51	29 1	
			24	M		13	32 17			51	29 3	
			25	M		13	32 06			51	29 3	
131	45 Ophiuchi d	July	8	S	17	18	32 59		119	44	17 8	
		Aug	5	M		18	32 71			44	16 3	
132	55 Ophiuchi α	June	13	R	17	28	31 77		77	20	14 0	
		July	4	R		28	31 67			20	12 6	
			19	R		28	31 71			20	12 5	
			22	M		28	31 82			20	12 5	
			23	M		28	31 56	6		20	13 1	
			26	M		28	31 84			20	12 7	
			31	S		28	31 77			20	12 9	
		Aug	2	S		28	31 68			20	12 3	
133	—Scorpii κ	July	25	M	17	32	56 56		128	57	16 7	
		"	29	S		32	56 60	5		57	16 5	
			31	S		32	56 44			57	16 3	
134		July	28	S	17	37	31 91	5	126	29	14 6	
		Aug	1	S		37	31 65			29	14 9	

Separate Results of Madras Meridian Circle Observations in 1862

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
						h	m	s					
	135		Aug	2	S	17	39	35 46		127	14	31 4	
	136	86 Herculis μ	June	21	S	17	41	3 57		62	11	47 7	
			July	19	R		41	3 47			11	48 5	
				22	M		41	3 34			11	46 3	
	137	8282 Taylor	July	25	M	17	47	59 31		131	41	32 3	~~7 0~~
				29	S		47	59 18			41	31 1	
	138	7499 Lacaille	Aug	1	S	17	48	6 97		129	4	38 1	
	139	7504 Lacaille	July	23	M	17	48	23 61		129	6	45 2	
			Aug	2	S		48	23 75	5		6	47 4	
	140	33 Draconis γ	June	21	S	17	53	24 35		38	29	38 2	
	141	– Sagittarii γ^1	Aug	5	M	17	56	12 29		119	34	55 1	
	142	8355 Taylor	July	12	S	17	56	51 22		133	25	37 6	
			„	28	S		56	51 11			25	38 4	
			„	29	S		56	51 17			25	38 7	
	143		Aug	2	S	18	1	5 15	6	131	43	37 7	
				16	S		1	5 20			43	33 8	
	144	13 Sagittarii μ	Sep	3	M	18	5	30 59		111	5	27 2	
	145	7622 Lacaille	Aug	16	S	18	5	53 38	4	133	12	18 2	
	146	7644 Lacaille	July	16	R	18	8	48 12	5	132	20	3 0	
1649	147	8461 Taylor	Aug	16	S	18	14	~~16 50~~		134	9	26 8	
	148	22 Sagittarii λ	Sep	3	M	18	19	27 12		115	29	37 1	
	149		Aug	16	S	18	22	42 21		135	15	52 6	
	150	3 Lyræ α	Aug	20	S	18	32	15 68		51	20	33 4	
			„	23	S		32	15 79			20	33 8	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
151		Aug	1	S	18	35	26 76		136	44	13 4	
			16	S		35	26 62			44	13 5	
152		Aug	22	S	18	35	39 81		137	11	6 6	7 5
153	R Scuti Var 1	Aug	13	M	18	40	6 79		95	51	1 3	
			14	M		40	6 73			51	0 5	
154	7872 Lacaille	Aug	22	S	18	42	11 14	5	136	45	9 1	
155	7878 Lacaille	Aug	16	S	18	42	41 15	4	136	44	45 1	
156	10 Lyræ β Var 1	July	29	S	18	44	59 01		56	47	45 2	
		Aug	1	S		44	59 12			47	44 3	
			2	S		44	59 15			47	43 7	
			20	S		44	59 12	4		47	44 8	
		,	23	S		44	59 06			47	43 3	
157	13 Lyræ Var 2	Aug	1	S	18	51	8 07		46	14	2 6	
		,	2	S		51	7 97			14	3 1	
		,	20	S		51	8 41			14	3 9	
158	17 Aquilæ ζ	July	23	M	18	59	4 12		76	20	19 6	
		Aug	13	M		59	3 92			20	21 8	
			14	M		59	4 04			20	21 1	
			21	S		59	3 95	6		20	21 3	
		,	23	S		59	3 96			20	19 4	
159	41 Sagittarii π	Sep	3	M	19	1	33 07	3	111	14	22 0	
160		Aug	23	S	19	8	9 62	6	129	49	15 9	9 0
161		Aug	2	S	19	9	59 71		123	31	8 8	
			13	M		9	59 72			31	9 6	
		,	14	M		9	59 74	6		31	7 9	
162	25 Aquilæ ω	Aug	16	S	19	11	20 11		78	39	3 3	
		,	21	S		11	20 20			39	3 4	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude	
					h	*m*	*s*						
163	44 Sagittarii ρ^1	Sep	3	M	19	13	39 87		108	6	13 0		
164		Aug	23	S	19	16	26 29		129	~~53~~	~~0 4~~	7 5	52 59 0
165	30 Aquilæ δ	July	29	S	19	18	32 33		87	9	26 7		
		Aug	16	S		18	32 30			9	26 7		
			22	S		18	32 36			9	26 8		
166		Aug	23	S	19	24	47 69		129	56	11 3	8 5	
167	51 Sagittarii h^1	Sep	5	M	19	27	38 72		115	1	4 1		
168	52 Sagittarii h^2	Aug	13	M	19	28	18 17		115	11	4 3		
			14	M		28	18 27			11	4 9		
			16	S		28	18 41			11	4 7		
169		Aug	22	S	19	34	16 31		127	17	18 3		
170	50 Aquilæ γ	July	12	S	19	39	41 76		79	43	14 8		
		Sep	5	M		39	41 74			43	14 4		
171		Aug	2	S	19	43	56 87		122	19	35 3		
			13	M		43	56 84			19	35 8		
172	53 Aquilæ α	Aug	20	S	19	44	3 06	5	81	29	36 0		
			22	S		44	2 81			29	36 3		
173	60 Aquilæ β	Aug	21	S	19	48	31 09		83	56	7 5		
		,	22	S		48	32 05	5		56	6 6		
174	9208 Taylor	July	12	S	19	55	34 13		122	26	25 3		
			28	S		55	34 13			26	24 9		
		Aug	1	S		55	34 04			26	25 0		
175	5 Capricorni α^1	Sep	5	M	20	9	59 76		102	55	54 8		
176	6 Capricorni α^2	Aug	1	S	20	10	23 73		102	58	11 6		
		Sep	3	M		10	23 63			58	11 1		
			30	M		10	23 62			58	12 5		

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	*m*	*s*					
177	39095 Lalande	Aug	1	S	20	14	31 32		106	15	51 3	8 0
			16	S		14	34 03			15	50 9	
			20	S		14	34 14			15	51 9	
178		Aug	23	S	20	16	43 30	4	121	12	10 2	8 5
179	11 Capricorni ρ	July	12	S	20	20	59 12		108	16	1 7	
		Aug	12	M		20	58 99			16	2 6	
		Sep	5	M		20	59 02	6		16	1 5	
			30	M		20	59 02			16	2 0	
180		Aug	23	S	20	26	13 37	5	121	13	3 2	8 0
181	14 Capricorni τ	Aug	1	S	20	31	33 07	5	105	*26	10 2	
182		Aug	23	S	20	35	48 56	6	123	58	55 6	8 0
183	50 Cygni α	Aug	9	M	20	36	13 80		45	13	40 7	
			12	M		36	13 60			12	41 6	
			13	M		36	13 6			12	41 5	
			14	M		36	13 41			12	41 9	
		Sep	3	M		36	13 57	5		12	42 0	
184		Aug	23	S	20	43	29 30		124	58	32 5	8 0
185	32 Vulpeculæ	Aug	12	M	20	48	10 74		62	27	57 2	
			18	S		48	10 75			27	56 3	
186		Aug	23	S	20	51	25 75		126	38	27 9	8 0
187	23 Capricorni θ	Aug	9	M	20	58	11 12		107	46	42 4	
188		Aug	23	S	20	59	31 54		129	1	55 3	8 5
189	13 Aquarii ν	July	12	S	21	2	4 37		101	55	42 9	
		Aug	20	S		2	1 49			55	42 2	
		Oct	3	S		2	1 36			55	41 8	
190	64 Cygni ζ	Aug	18	S	21	7	3 75	5	60	20	15 7	
		Sep	29	M		7	3 77			20	16 2	
		,,	30	M		7	3 80			20	16 3	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude	
					h	m	s						
190	64 Cygni ζ	Oct	1	S	21	7	3 72		60	20	16 1		
			4	S		7	3 61			20	14 4		
191		Aug	23	S	21	10	53 55		129	32	25 0	8 0	
192	22 Aquarii β	Sep	29	M	21	24	17 55		96	10	35 9		
			30	M		24	17 36			10	37 1		
		Oct	1	S		24	17 61			10	36 3		
			2	S		24	17 58			10	35 6		
193		July	12	S	21	29	47 10		98	25	58 7		
		Aug	18	S		29	47 26			26	0 0		
194	23 Aquarii ξ	Aug	14	M	21	30	23 50	5	98	28	17 0		
		Sep	5	M		30	21 26			28	15 3		
195	8 Pegasi ε	Aug	18	S	21	37	21 15		80	45	21 6		
		Oct	1	S		37	21 35			45	21 6		
			3	S		37	21 19			45	22 1		
			4	S		37	21 46			45	21 5		
		,	6	S		37	21 39			45	20 5		
196	49 Capricorni δ	Sep	5	M	21	39	25 10		106	45	5 5		
197	16 Pegasi	Sep	22	S	21	46	47 15		61	43	23 4		
			29	M		46	46 91			43	23 1		
		Oct	6	S		46	~~43 06~~			43	19 6		— 47 06
			11	S		46	47 23			43	22 0		
			13	S		46	47 12			43	21 8		
			14	S		46	47 15			43	23 2		
198	31 Aquarii o	Oct	4	S	21	56	10 36		92	49	12 8		
199	34 Aquarii α	Aug	9	M	21	58	41 63		90	59	19 4		
		Sep	17	M		58	41 16			59	20 4		
			24	M		58	41 57			59	20 6		
			26	M		58	41 61	5		59	22 2		
			27	M		58	41 68			59	20 9		
		Oct	7	S		58	41 55			59	18 8		
			14	S		58	41 53			59	20 2		

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
200	43 Aquarii θ	Aug	25	S	22	9	33 11		98	28	7 9	
		Sep	12	R		9	32 81	5		28	7 3	
		Oct	3	S		9	32 90			28	8 6	
			17	R		9	32 94			28	10 3	
		Nov	14	M		9	32 95			28	7 5	
201	55 Aquarii ζ	Nov	1	M	22	21	43 40		90	13	28 1	
202		Aug	18	S	22	21	15 17		100	38	23 6	
			25	S		21	14 86			38	23 2	
203	150 R P L	Sep	6	R	22	23	45 91	5	4	35	18 1	
			30	M		23	45 86	7		35	20 5	
		Oct	2	S		23	15 11	5		35	18 6	
			7	S		23	15 19	5		35	17 4	
			13	S		23	16 07	3		35	19 3	
			15	S		23	45 51	5		35	20 1	
			16	R		23	45 75	3		35	19 2	
		Nov	13	M		23	45 69	3		35	18 9	
204	62 Aquarii η	Aug	27	S	22	28	15 83	5	90	49	39 2	
		Sep	8	R		28	15 81	5		49	39 7	
		„	17	M		28	15 84			49	40 2	
			23	M		28	15 88			49	41 7	
		„	24	M		28	15 87			49	40 5	
			26	M		28	15 87			49	40 9	
			27	M		28	15 86			49	42 0	
		Oct	3	S		28	15 91			49	39 8	
			4	S		28	15 91			49	40 2	
			17	R		28	15 83			49	40 5	
			18	R		28	15 81			49	40 2	
			21	R		28	15 87			49	40 6	
		„	23	R		28	15 80			49	40 2	
		Nov	1	M		28	15 86			49	40 4	
			14	M		28	15 87			49	40 1	
			15	M		28	15 84			49	38 6	
205	153 R P L	Nov	3	M	22	29	50 43	3	2	37	14 7	
			4	M		29	50 33	3		37	13 8	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No. of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	′	″	
205	153 R P L	Nov	5	M	22	29	50.40	3	2	37	15.4	
			6	M		29	50.70	2		37	14.6	
			11	M		29	50.96	3		37	14.1	
206	42 Pegasi ζ	Aug	25	S	22	34	31.76		79	53	15.8	
			27	S		34	31.54			53	16.6	
		Sep	16	M		34	31.69			53	16.5	
			27	M		34	31.75			53	17.7	
		Oct	7	S		34	34.90			53	15.0	
			11	S		34	31.60			53	17.7	
			13	S		34	31.81	5		53	16.8	
		,,	15	S		34	31.69			53	17.5	
			16	I		34	31.75			53	17.6	
		Nov	15	M		34	31.77			53	15.0	
207	XXII 844 W B E	Oct	17	R	22	40	28.04		87	49	19.8	7.5
208	24 Piscis Australis α	Sep	10	R	22	50	1.15	5	120	21	11.1	
			16	M		50	0.99			21	9.5	
			17	M		50	1.13			21	11.4	
			23	M		50	1.00			21	10.8	
			27	M		50	1.01			21	11.2	
		Oct	2	S		50	0.94	6		21	9.0	
			15	S		50	0.91			21	9.3	
			16	R		50	0.98			21	10.2	
			18	R		50	1.02			21	10.4	
			23	R		50	1.01			21	10.3	
			24	R		50	1.03			21	9.7	
			25	R		50	0.97			21	9.6	
		Nov	6	M		50	1.06			21	9.0	
209		Sep	24	M	22	51	14.47		85	27	8.7	
210	4 Piscium β	Sep	8	P	22	56	51.24		86	55	19.8	
		Oct	4	S		56	51.08			55	20.2	
211	53 Pegasi β	Nov	7	M	22	57	5.33		62	39	53.5	
212	54 Pegasi α	Aug	25	S	22	57	53.00		75	32	11.2	
			26	S		57	53.26			32	10.5	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	′	″	
212	54 Pegasi α	Aug	27	S	22	57	53 41		75	32	11 4	
		Sep	22	S		57	53 34			32	14 0	
			23	M		57	53 17			32	11 3	
			26	M		57	53 28			32	13 4	
		Oct	2	S		57	53 20			32	11 5	
			13	S		57	53 13			32	12 2	
			14	S		57	53 26	5		32	12 9	
			15	S		57	53 33			32	12 7	
			16	R		57	53 26			32	12 2	
			17	R		57	53 25			32	1 2	
			18	R		7	3 26			32	12 9	
			20	R		57	53 29			32	13 3	
			21	R		57	53 23	5		32	12 1	
			25	R		7	53 29			32	11 5	
213	6 Piscium γ	Sep	6	R	23	10	0 65		87	28	16 7	
			8	R		10	0 67	4		28	15 4	
			9	R		10	0 71			28	16 5	
			18	M		10	0 64			28	15 7	
			20	M		10	0 53	4		28	16 7	
			21	M		10	0 65			28	16 6	
			26	M		10	0 62			28	17 0	
			27	M		10	0 3			28	17 3	
		Oct	7	S		10	0 59			28	14 8	
			20	I		10	0 67	(		28	16 6	
			28	R		10	0 68			28	15 2	
		Nov	1	M		10	0 69			28	15 8	
			5	M		10	0 67			28	15 9	
			11	M		10	0 65			28	15 6	
			12	M		10	0 67			28	16 7	
			13	M		10	0 70			28	16 9	
			14	M		10	0 71			28	15 2	
			15	M		10	0 65			28	1 5	
214		Oct	13	S	23	10	59 ~~17~~ 43	5	127	~~25~~ 26	13 4	9 0
215		Oct	6	S	23	11	30 98		129	58	31 4	8 0
216		Oct	14	S	23	12	6 44		127	25	28 9	8 0

59 43

26

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	'	"	
217	8 Piscium κ	Sep	5	M	23	19	51 54		89	29	58 8	
			6	R		19	51 50			29	58 6	
			16	M		19	51 51			29	58 6	
			18	M		19	51 11	2		29	59 1	
		Oct	20	R		19	51 17			29	58 9	
			25	R		19	51 50			29	58 2	
		Nov	1	M		19	51 46			29	58 6	
			3	M		19	51 50			29	58 9	
			5	M		19	51 12			29	58 8	
			7	M		19	51 52			29	57 9	
			14	M		19	51 39			29	58 8	
			15	M		19	51 10			29	56 9	
218	10 Piscium θ	Aug	12	M	23	20	58 00		84	22	42 9	
219	158 R P L	Sep	30	M	23	27	49 73	7	3	27	15 3	
		Oct	28	R		27	50 79	3		27	12 7	
220	17 Piscium ι	Aug	12	M	23	32	51 15		85	7	17 2	
		Sep	18	M		32	51 06			7	15 9	
		Oct	6	S		32	51 26			7	16 1	
			27	R		32	51 07			7	16 7	
			28	R		32	51 16			7	18 4	
		Nov	3	M		32	51 19			7	16 3	
			4	M		32	51 15			7	16 4	
			6	M		32	51 20			7	16 2	
			7	M		32	51 21			7	15 7	
		Dec	1	M		32	51 15			7	17 1	
221	9583 Lacaille	Nov	5	M	23	38	43 99	5	128	44	33 2	8 0
222		Oct	3	S	23	40	57 87	5	128	47	18 4	8 5
223	— Sculptoris δ	Sep	6	R	23	41	43 93		118	53	35 3	
			8	R		41	43 89			53	36 7	
		Oct	21	R		41	43 91			53	36 9	
			23	R		41	43 92			53	35 8	
		,,	28	R		41	43 89			53	35 3	
		Nov	4	M		41	43 96			53	36 4	
			7	M		41	43 89			53	36 0	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	′	″	
224		Oct	27	R	23	41	51 93		142	5	4 1	8 5
225	R Cassiopeæ Var 3	Oct	28	R	23	51	24 51		30	22	49 6	6 5
		Nov	5	M		51	21 88			22	18 0	6 0
226		Oct	27	R	23	51	52 91	4	143	16	38 8	9 5
227	28 Piscium ω	Sep	8	R	23	52	13 51		83	54	2 5	
			9	R		52	13 58	5		54	3 6	
		Oct	8	S		52	13 56			54	0 4	
		„	21	R		52	13 55			54	2 6	
		Nov	1	M		52	13 54			54	2 4	
		„	3	M		52	13 56			54	1 9	
		„	6	M		52	13 50	5		54	2 0	
		„	11	M		52	13 56			54	1 4	
		„	13	M		52	13 55			54	2 9	

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863

REDUCED TO JANUARY 1 OF THAT YEAR

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s	°				
1	21 Andromedæ α	2 0		0	1	15 53	61	40	18 5	4	0 71
2	47374 Lalande	7 0		0	2	51 10	93	19	45 5	4	0 81
3	88 Pegasi γ	2 7		0	6	7 92	75	35	2 1	2	0 81
4	48 Taylor	6 5		0	10	42 52	89	4	43 7	18	0 78
5	41 Piscium d	6 0		0	13	29 88	82	34	~~34 3~~	5	0 73 34 2
6	44 Piscium	6 0		0	18	19 73	88	49	29 2	11	0 77
7	12 Ceti	5 7		0	22	59 76	94	43	13 7	5	0 82
8	670 Lalande	7 0	2	0	23	3 04	85	54	13 7	12	0 75
9		9 0	3	0	28	47 55	89	8	14 0	3	0 87
10	15 Ceti	7 5		0	31	1 16	91	15	47 0	4	0 75
11	1097 Lalande	8 0	4	0	31	29 73	89	0	35 8	4	0 87
12	1123 Lalande	8 5	1	0	35	35 78	89	3	40 8	2	0 89
13	16 Ceti β	2 0		0	36	39 58	108	44	40 5	5	0 77
14	1198 Lalande	8 5	1	0	38	0 50	88	56	56 2	1	0 85
15	60 Piscium	6 5		0	40	15 45	84	0	46 7	4	0 75
16	235 Taylor	6 5		0	41	8 82	85	25	47 2	4	0 82
•17	63 Piscium δ	4 9		0	41	31 47	83	10	0 2	11	0 73
18		9 2	3	0	41	33 94	89	7	14 5	3	0 85
19	20 Ceti	5 3		0	45	57 31	91	53	40 5	14	0 74
20	0 806 W B E	10 0	2	0	46	33 72	88	50	25 2	3	0 88
21	2 Ursæ Minoris	4 4		0	50	30 17	4	29	9 4	1	0 69
22	1638 Lalande	7 6	3	0	50	34 36	88	57	43 7	3	0 81
23	1639 Lalande	8 5	2	0	50	36 18	88	39	12 9	3	0 86
24	1784 Lalande	8 0	2	0	54	52 79	88	13	7 7	3	0 86
25	71 Piscium ε	4 6		0	55	47 00	82	51	13 0	4	0 72
26	26 Ceti)	6 0		0	56	42 92	89	22	26 3	16	0 75
27	1879 Lalande	7 6	3	0	57	37 75	88	25	33 9	3	0 84
28	0 1031 W B E	9 0	3	0	59	1 78	88	6	27 7	3	0 89
29	29 Ceti	7 0	1	1	0	52 74	88	43	46 6	2	0 92
30	80 Piscium e	5 8		1	1	15 77	85	4	52 6	17	0 72
31	1 15 W B E	9 0	1	1	2	53 51	87	39	17 6	1	0 86
32	2089 Lalande	8 4	3	1	3	21 21	88	10	53 2	3	0 85
33	33 Ceti	6 3		1	3	27 56	88	17	23 6	3	0 84
34	1 101 W B E	9 0	3	1	7	39 67	87	54	36 7	3	0 86
35		10 0	2	1	9	9 95	87	42	42 8	3	0 86

1 —Alpherat 3 —Algenib

9 11 12 14 18 20 22, 23 24 27 28 31 32 33, 34, 35 Comparison Stars used with Mars in opposition, for investigation of the Constant of Solar Parallax

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s		"		
1	21 Andromedæ α	+ 3 0760	+ 0 0182	+ 0 009	− 20 056	+ 0 013	+ 0 15	1
2	47371 Lalande	+ 3 0711	+ 0 0004		− 20 053	+ 0 015		
3	88 Pegasi γ	+ 3 0811	+ 0 0100	0 000	− 20 049	+ 0 022	+ 0 02	26
4	48 Taylor	+ 3 0730	+ 0 0030		− 20 034	+ 0 030		57
5	41 Piscium d	+ 3 0823	+ 0 0066	− 0 002	− 20 020	+ 0 036	− 0 01	66
6	44 Piscium	+ 3 0743	+ 0 0035	− 0 002	− 19 991	+ 0 045	+ 0 02	87
7	12 Ceti	+ 3 0609	+ 0 0008	− 0 002	− 19 955	+ 0 055	+ 0 01	112
8	670 Lalande	+ 3 0616	+ 0 0054		− 19 954	+ 0 054		113
9		+ 3 0716	+ 0 0039		− 19 897	+ 0 065		
10	15 Ceti	+ 3 0681	+ 0 0029		− 19 872	+ 0 069		163
11	1097 Lalande	+ 3 0755	+ 0 0043		− 19 828	+ 0 076		
12	1123 Lalande	+ 3 0755	+ 0 0044		− 19 814	+ 0 079		
13	16 Ceti β	+ 2 9997	− 0 0055	+ 0 013	− 19 799	+ 0 080	− 0 02	196
14	1198 Lalande	+ 3 0761	+ 0 0045		− 19 779	+ 0 083		
15	60 Piscium	+ 3 0066	+ 0 0063		− 19 746	+ 0 087		216
16	235 Taylor	+ 3 0912	+ 0 0066		− 19 733	+ 0 089		
17	63 Piscium o	+ 3 1009	+ 0 0079	+ 0 003	− 19 727	+ 0 090	+ 0 05	222
18		+ 3 0758	+ 0 0047		− 19 727	+ 0 089		
19	20 Ceti	+ 3 0633	+ 0 0031	− 0 004	− 19 653	+ 0 097	+ 0 01	242
20	0 806 W B E	+ 3 0775	+ 0 0051		− 19 643	+ 0 099		
21	2 Ursæ Minoris	+ 6 7971	+ 1 2756	+ 0 06[illegible]	− 19 570	+ 0 225	+ 0 01	262
22	1638 Lalande	+ 3 0773	+ 0 0052		− 19 569	+ 0 107		
23	1639 Lalande	+ 3 0789	+ 0 0054		− 19 568	+ 0 107		
24	1784 Lalande	+ 3 0819	+ 0 0058		− 19 482	+ 0 11[illegible]		
25	71 Piscium ε	+ 3 1124	+ 0 0087	− 0 002	− 19 464	+ 0 119	0 00	288
26	26 Ceti	+ 3 0757	+ 0 0053		− 19 444	+ 0 118		295
27	1879 Lalande	+ 3 0812	+ 0 0058		− 19 424	+ 0 120		
28	0 1031 W B E	+ 3 0833	+ 0 0061		− 19 394	+ 0 123		
29	29 Ceti	+ 3 0799	+ 0 0058		− 19 352	+ 0 126		324
30	80 Piscium ι	+ 3 1025	+ 0 0077	− 0 021	− 19 343	+ 0 128	+ 0 19	328
31	1 15 W B E	+ 3 0869	+ 0 0065		− 19 304	+ 0 130		
32	2089 Lalande	+ 3 0836	+ 0 0062		− 19 294	+ 0 131		
33	33 Ceti	+ 3 0830	+ 0 0062	− 0 003	− 19 292	+ 0 131	+ 0 02	344
34	1 101 W B E	+ 3 0862	+ 0 0066		− 19 187	+ 0 139		
35		+ 3 0879	+ 0 0068		− 19 140	+ 0 142		

Mean Positions of Stars for 1862 *January 1st,*

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
					h	*m*	*s*						
	36	89 Piscium *f*	6 0		1	10	40 96	87	6	47 5	13	0 77	
	37	43 Ceti	6 5		1	15	31 44	91	10	21 1	8	0 77	
	38	45 Ceti θ	4 6		1	17	7 49	98	55	47 6	4	0 86	
	39	93 Piscium ρ	5 0		1	18	49 25	71	32	49 3	1	0 77	
	40	465 Taylor	7 0	1	1	19	23 61	91	7	~~28~~	3	0 84	— 2 7
	41	98 Piscium μ	5 0		1	22	57 40	84	34	7 6	7	0 69	
	42	99 Piscium η	4 7		1	24	6 16	75	22	0 7	7	0 79	
	43	514 Taylor	6 0	2	1	28	27 04	73	16	27 3	2	0 92	
	44	106 Piscium ν	4 6		1	34	15 12	85	12	43 7	22	0 73	
	45	590 Taylor	7 0		1	41	17 19	87	0	18 3	4	0 70	
	46	111 Piscium	5 5		1	46	24 71	87	29	43 4	5	0 70	
	47	6 Arietis β	2 9		1	47	1 30	69	52	6 3	15	0 80	
	48	13 Arietis α	2 0		1	59	23 95	67	11	31 7	11	0 84	
	49	21 Arietis	6 7	2	2	7	53 29	65	35	55 3	3	0 90	
	50	67 Ceti	6 1		2	10	6 01	97	3	36 0	6	0 89	
	51	22 Arietis θ	5 9		2	10	27 15	70	41	20 3	1	0 77	
2 51 —	52	68 Ceti *o* Var 1	5 7	2	2	12	~~22 52~~	93	36	22 1	3	0 83	
	53	73 Ceti ξ	4 4		2	20	49 52	82	9	38 1	6	0 89	
57 77	54	26 R P L	8 0		2	21	57 ~~30~~ 77	3	33	29 5	3	0 86	
	55	31 Arietis	5 5		2	29	6 59	78	9	11 1	2	0 92	
	56	32 Arietis ν	6 0		2	30	59 20	68	35	16 1	1	0 69	
	57	86 Ceti γ	4 0		2	36	9 11	87	20	52 1	1	0 91	
	58	42 Arietis π	5 7		2	41	35 56	7	6	15 1	1	0 69	
	59	48 Arietis ε	5 3		2	51	19 59	69	12	50 5	2	0 81	
	60	92 Ceti α	2 3		2	55	4 01	86	27	14 0	2	0 88	
	61	33 R P L	5 7		3	0	16 90	5	35	17 [illegible]	2	0 92	
	62	57 Arietis δ	1 1		3	3	41 61	70	47	53 6	2	0 85	
	63	58 Arietis ζ	5 3		3	6	58 39	69	28	11 3	2	0 92	
	64		8 0	1	3	12	18 91	130	56	40 2	1	0 91	
	65	33 Persei α	2 6		3	14	29 21	40	35	1 7	1	0 91	
	66	17 Tauri	1 0		3	36	11 23	66	19	25	[illegible]	0 85	
	67		8 0	1	3	38	1 93	136	13	17	1	0 91	
	68	25 Tauri η	3 7		3	39	17 10	66	15	29 5		0 92	
	69	34 Eridani γ	3 5		3	51	35 48	103	51	11 8	2	0 [illegible]	
	70		10 0	1	3	53	0 15	128	25	47 5	1	0 1[illegible]	

52—Mira Ceti Var 1 —Period 331 days—Range 2nd to 10th magnitude
66—Electra
68—Alcyone

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
36	89 Piscium *f*	+ 3 0921	+ 0 0072	− 0 005	− 19 109	+ 0 146	+ 0 02	388
37	43 Ceti	+ 3 0632	+ 0 0053		− 18 976	+ 0 153		406
38	45 Ceti θ	+ 3 0029	+ 0 0018	− 0 007	− 18 931	+ 0 151	+ 0 22	420
39	93 Piscium ρ	+ 3 2206	+ 0 0163		− 18 912	+ 0 165		427
40	465 Taylor	+ 3 0810	+ 0 0056		− 18 864	+ 0 161		433
41	98 Piscium μ	+ 3 1171	+ 0 0089	+ 0 019	− 18 755	+ 0 169	+ 0 18	448
42	99 Piscium η	+ 3 1973	+ 0 0112	0 000	− 18 720	+ 0 176	0 00	453
43	514 Taylor	+ 3 2235	+ 0 0151		− 18 580	+ 0 185		477
44	106 Piscium ν	+ 3 1167	+ 0 0091	− 0 004	− 18 383	+ 0 191	+ 0 04	518
45	590 Taylor	+ 3 1020	+ 0 0063		− 18 128	+ 0 202		551
46	111 Piscium	+ 3 0983	+ 0 0083	− 0 002	− 17 931	+ 0 210	+ 0 08	74
47	6 Arietis β	+ 3 2926	+ 0 0183	+ 0 002	− 17 908	+ 0 226	+ 0 11	577
48	13 Arietis α	+ 3 [illegible] 18	+ 0 0203	+ 0 012	− 17 395	+ 0 252	+ 0 15	618
49	21 Arietis	+ 3 3952	+ 0 0215		− 17 013	+ 0 2[illegible]		6[illegible]3
50	67 Ceti	+ 2 9820	+ 0 0049	+ 0 003	− 1[illegible] 90[illegible]	+ 0 212	+ 0 11	704
51	22 Arietis θ	+ 3 [illegible]222	+ 0 0179	− 0 002	− 16 910	+ 0 [illegible]	+ 0 01	707
52	68 Ceti o Var 1	+ 3 0260	+ 0 00[illegible]1	− 0 003	− 1[illegible] 801	+ 0 248	+ 0 23	720
53	73 Ceti	+ 3 1781	+ 0 0117	+ 0 001	− 16 387	+ 0 27[illegible]	+ 0 02	760
54	26 B P L	+ 15 5555	+ 3 5726		− 1[illegible] 329	+ 1 321		
55	31 Arietis	+ 3 2119	+ 0 0137		− 15 958	+ 0 291		798
56	32 Arietis ν	+ 3 3922	+ 0 0193	− 0 002	− 15 858	+ 0 310	+ 0 02	808
57	86 Ceti γ	+ 3 1110	+ 0 0094	− 0 011	− 15 578	+ 0 291	+ 0 19	837
58	42 Arietis π	+ 3 3351	+ 0 01[illegible]3	− 0 002	− 1[illegible] 273	+ 0 322	− 0 02	870
59	48 Arietis ε	+ 3 4170	+ 0 0185	− 0 001	− 14 711	+ 0 313	+ 0 03	921
60	92 Ceti α	+ 3 1292	+ 0 0098	− 0 002	− 14 183	+ 0 325	+ 0 11	91[illegible]
61	33 P I I	+ 12 71[illegible]	+ 1 5782	0 000	− 14 161	+ 1 32	+ 0 08	960
62	57 Arietis δ	+ 3 406[illegible]	+ 0 0171	+ 0 010	− 13 948	+ 0 3[illegible]1	+ 0 00	986
63	58 Arietis ζ	+ [illegible]	+ 0 0176	− 0 006	− 13 [illegible]	+ 0 [illegible]3	+ 0 07	999
64		+ 2 2080	+ 0 0011		− 13 398	+ 0 216		
65	33 Persei α	+ 4 2110	+ 0 0183	+ 0 002	− 13 2[illegible]8	+ 0 17	+ 0 05	1013
66	17 Tauri	+ 3 5171	+ 0 0180	0 000	− 11 710	+ 0 421	+ 0 01	1147
67		+ 1 8360	+ 0 0014		− 11 610	+ 0 2[illegible]3		
68	25 Tauri η	+ 3 5511	+ 0 0177	− 0 001	− 11 555	+ 0 130	+ 0 06	1166
69	34 Eridani γ^1	+ 2 7916	+ 0 0017	+ 0 002	− 10 657	+ 0 350	+ 0 12	1234
70		+ 2 1698	+ 0 0030		− 10 563	+ 0 271		

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52 Proper motion adopted from the *British Association Catalogue*
53 Proper motion deduced from the *Nautical Almanac for 1862*

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
71	35 Tauri λ Var 1	4 5		3	53	2 16	77	54	10 5	1	0 90
72	37 Tauri A¹	4 7		3	56	32 17	68	17	55 7	2	0 92
73		9 0	1	4	3	39 17	146	56	47 4	1	0 91
74	74 Tauri ε	3 7		4	20	33 75	71	7	45 3	4	0 89
75	87 Tauri α	1 0		4	28	0 29	73	46	18 5	1	0 93
76	3 Aurigae ι	4 0		4	48	0 67	57	3	21 5	2	0 91
77	109 Tauri n	6 0	1	5	10	59 17	68	3	0 1	1	0 93
78	112 Tauri β	2 0		5	17	51 20	61	30	19 0	2	0 89
79	10 R P L	6 2		5	18	8 12	4	53	10 3	1	0 93
80	123 Tauri ζ	4 0		5	29	23 99	68	56	43 2	1	0 85
81		9 5		5	49	21 27	63	50	15 9	1	0 93
82	43 R P L	6 6		5	51	7 35	3	14	23 0	1	0 91
83	13 Geminorum μ	3 4		6	14	56 60	67	25	9 7	1	0 91
84	24 Geminorum γ	2 6		6	29	41 37	73	29	12 6	2	0 94
85	68 Geminorum	5 4		7	25	43 71	73	52	50 3	1	0 91
86	81 Geminorum g	4 9		7	38	7 86	71	9	21 2	2	0 94
87	70 R P L	6 5		9	45	55 84	5	25	14 4	1	0 76
88	72 R P L	5 9		10	9	0 70	5	3	2 7	10	0 80
89	79 R P L	7 7		10	51	55 00	1	36	45 1	1	0 82
90	89 R P L	6 3		11	57	44 99	3	38	53 0	3	0 82
91	2 Corvi ε	3 0		12	3	1 82	111	51	8 3	3	0 12
92	92 R P L	6 7		12	12	50 01	2	47	49 5	1	0 87
93	93 R P L	6 5		12	11	20 31	1	32	7 8	1	0 81
94	21 Virginis q	6 0		12	26	39 19	98	41	26 0	1	0 13
95	9 Corvi β	2 3		12	27	8 56	112	38	0 6	3	0 12
96	67 Virginis α	1 0		13	17	55 63	100	26	25 8	2	0 12
19 75 97	103 R P L	7 3		13	20	~~20 74~~ 19 75	4	31	28 7	1	0 85
98	79 Virginis ζ	4 1		13	27	39 81	89	53	22 6	2	0 13
99	85 Ursae Majoris η	2 3		13	42	6 02	39	58	49 7	1	0 14
100	8 Bootis η	3 0		13	48	6 75	70	51	33 0	2	0 43
101	93 Virginis τ	4 3		13	51	37 51	87	47	10 4	1	0 15
102	108 R P L	7 3		14	4	11 79	3	31	51 2	1	0 43
103	16 Bootis α	1 0		14	9	2[illegible] 03	70	5	51 8	4	0 15
104	100 Virginis λ	5 3		14	11	38 72	102	14	2 4	1	0 14
105	25 Bootis ρ	4 0		14	25	52 89	59	1	17 7	5	0 13

71 —λ Tauri Var 1 – Period 3 95 days —Range 3 4 to 4 3 magnitude
75 —Aldebaran 96 —Spica 103 —Arcturus

81 — Observed in mistake for the planet Uranus

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
71	35 Tauri λ Var. 1	+ 3.3158	+ 0.0115		− 10.550	+ 0.416		1241
72	37 Tauri A¹	+ 3.5298	+ 0.0153	+ 0.004	− 10.288	+ 0.416	+ 0.09	1257
73		+ 1.2763	+ 0.0290		− 9.719	+ 0.167		
74	74 Tauri ε	+ 3.4866	+ 0.0120	+ 0.005	− 8.432	+ 0.468	+ 0.03	1376
75	87 Tauri α	+ 3.4302	+ 0.0097	+ 0.004	− 7.836	+ 0.464	+ 0.17	1420
76	3 Aurigae ι	+ 3.8959	+ 0.0144	− 0.003	− 6.197	+ 0.514	+ 0.02	1520
77	109 Tauri n *	+ 3.5986	+ 0.0078	+ 0.001	− 4.255	+ ~~0.409~~	− 0.05	1637 — + 0.515
78	112 Tauri β	+ 3.7851	+ 0.0082	+ 0.003	− 693	+ 0.515	+ 0.20	1681
79	40 R. P. L.	+ 18.1530	+ 0.6965		− 3.613	+ 2.619		1662
80	123 Tauri ζ	+ 3.5822	+ 0.0055	0.000	− 2.671	+ 0.519	+ 0.05	1767
81		+ 3.7283	+ 0.0031		− 0.930	+ 0.513		
82	13 L. I. I.	+ 26.6712	+ 0.3267		− 0.777	+ 3.588		1879
83	13 Geminorum μ	+ 3.6268	− 0.0003	+ 0.005	+ 1.279	+ 0.527	+ 0.11	2047
84	24 Geminorum γ	+ 3.4650	− 0.0015	+ 0.001	+ 2. 95	+ 0.500	+ 0.01	2163
85	68 Geminorum	+ 3.4317	− 0.0066	− 0.004	+ 7.329	+ 0.463	0.00	2186
86	81 Geminorum g	+ 3.1872	− 0.0086	− 0.008	+ 8.325	+ 0.459	+ 0.05	2558
87	70 R. P. L.	+ 0.8518	+ 1.5994		+ 16.720	+ 0.867		
88	72 R. P. L.	+ 10.1116	− 1.6770	− 0.079	+ 17.719	+ 0.677	+ 0.05	3195
89	79 R. P. L.	+ 16.3813	− 9.8553		+ 19.251	+ 0.662		
90	89 R. P. I.	+ 3.2779	− 0.5296		+ 20.055	− 0.004		4070
91	2 Corvi ε	+ 3.0791	+ 0.0112	− 0.005	+ 20.054	− 0.016	− 0.01	4097
92	92 R. P. I.	+ 1.5176	+ 0.0007	+ 0.115	+ 20.0 4	− 0.022	+ 0.05	4150
93	93 R. P. I.	− 0.0472	+ 1.1509	− 0.152	+ 20.016	− 0.009	− 0.07	4165
94	21 Virginis q	+ 3.0958	+ 0.0080	− 0.009	+ 19.920	− 0.062	0.00	4230
95	9 Corvi β	+ 3.1379	+ 0.0165	− 0.008	+ 19.915	− 0.061	+ 0.07	4231
96	67 Virginis α	+ 3.1513	+ 0.0100	− 0.005	+ 18.908	− 0.103	+ 0.01	4480
97	103 R. P. L.	− 2.7310	+ 0.9931		+ 18.556	+ 0.129		4198
98	79 Virginis ζ	+ 3.0710	+ 0.0064	− 0.019	+ 18.606	− 0.176	− 0.06	4532
99	85 Ursae Majoris η	+ 2.3852	− 0.0103	− 0.012	+ 18.098	− 0.159	+ 0.03	4607
100	8 Bootis η	+ 2.8617	− 0.0006	− 0.004	+ 17.866	− 0.199	+ 0.36	4618
101	93 Virginis τ	+ 3.0472	+ 0.0064	+ 0.001	+ 17.599	− 0.222	+ 0.07	4672
102	108 R. P. I.	− 7.9419	+ 2.5361		+ 17.182	+ 0.591		
103	16 Bootis α	+ 2.8130	+ 0.0004	− 0.079	+ 16.914	− 0.227	+ 1.93	4720
104	100 Virginis λ	+ 3.2362	+ 0.0140	− 0.002	+ 16.836	− 0.264	− 0.02	4743
105	25 Bootis ρ	+ 2.5944	− 0.0015	− 0.008	+ 16.127	− 0.233	− 0.14	4808

Mean Positions of Stars for 1862 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
106	5 Libræ	6 2		14	38	21 39	101	52	32 9	1	0 44
107	36 Bootis ε	2 3		14	38	57 60	62	20	33 2	3	0 14
108	9 Libræ α	3 7		14	43	14 77	105	27	57 9	2	0 42
109	7 Ursæ Minoris β	2 8		14	51	8 66	15	16	51 0	2	0 49
110	43 Bootis ψ	5 0		14	58	32 03	62	30	46 3	3	0 42
111	24 Libræ ι	5 3		15	4	21 52	109	16	1 6	2	0 44
112	111 R P L	6 9		15	5	58 11	5	31	0 0	2	0 44
113	27 Libræ β	2 0		15	9	34 88	98	52	17 1	3	0 45
114	32 Libræ ζ	5 7		15	20	28 65	106	13	57 4	2	0 44
115	114 R P L	6 9		15	23	16 62	2	11	37 9	1	0 92
116	5 Coronæ Borealis α	2 0		15	28	50 78	62	19	8 3	6	0 15
117	24 Serpentis α	2 3		15	37	28 25	83	8	16 4	2	0 16
118	115 R P L	6 9		15	49	0 87	4	43	35 0	1	0 43
119	16 Ursæ Minoris ζ	4 0		15	49	1 15	11	46	58 0	1	0 55
120	7 Scorpii	4 0		15	52	10 41	112	13	32 7	1	0 5[illegible]
121	8 Scorpii β^1	3 0		15	57	25 00	109	25	29 2	13	0 51
122	1 Ophiuchi δ	3 0		16	7	6 90	93	20	13 0	1	0 14
123	21 Scorpii α	1 3		16	20	57 00	116	7	20 7	8	0 52
124	S Ophiuchi Var 3			16	2[illegible]	18 98	106	52	3 1	1	0 [illegible]
125	40 Herculis ζ	2 7		16	36	5 06	58	8	41 0	9	0 55
126	27 Ophiuchi κ	3 7		16	51	8 21	80	24	27 6	9	0 55
127	22 Ursæ Minoris ε	4 1		17	0	11 52	7	44	31 3	2	0 91
128	R Ophiuchi Var 2			16	59	50 59	105	54	20 1	3	0 58
129	64 Herculis α Var 1	3 0		17	8	21 1	75	26	58 6	5	0 55
130	42 Ophiuchi θ	5 6		17	1[illegible]	32 07	114	51	29 0	4	0 [illegible]3
131	45 Ophiuchi d	5 0		17	18	2 65	119	41	17 1	2	0 55
132	55 Ophiuchi α	2 0		17	28	31 73	77	20	12 9	8	0 55
133	— Scorpii κ	[illegible] 3		17	32	[illegible]6 53	128	57	1[illegible] 5	3	0 57
134		8 5		17	37	31 78	126	2[illegible]	14 8	2	0 58
135		8 0		17	9	35 46	127	11	31 1	1	0 58
136	86 Herculis μ	3 5		17	41	3 46	62	11	17 5	3	0 53
137	8282 Taylor	7 0	1	17	47	59 40	131	41	31 9	2	0 57
138	7499 Lacaille	7 0		17	48	6 97	129	4	38 1	1	0 58
139	7504 Lacaille	7 0		17	48	23 68	129	6	46 3	2	0 57
140	33 Draconis γ	2 3		17	53	24 35	38	29	38 2	1	0 47

107 —Mirac 116 —Alphecca 123 —Antares
124 —S Ophiuchi Var 3 —Period 234 days —Range 9th magnitude to invisibility
127 —R Ophiuchi Var 2 —Period 302 days —Range 7 5 magnitude to invisibility
129 —α Herculis Var 1 —supposed to vary irregularly between 3rd and 4th magnitudes
134 135 138 139 Comparison stars for Donati s comet of 1858

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
106	5 Libræ	+ 3 2977	+ 0 0152	− 0 003	+ 15 456	− 0 314	+ 0 01	4868
107	36 Bootis ε	+ 2 6210	− 0 0001	− 0 005	+ 15 422	− 0 252	− 0 01	4876
108	9 Libræ α	+ 3 [illegible]137	+ 0 0151	− 0 007	+ 15 179	− 0 324	+ 0 06	4895
109	7 Urs Min β	− 0 2520	+ 0 1022	− 0 005	+ 14 719	+ 0 018	+ 0 03	4936
110	43 Bootis ψ	+ 2 5880	+ 0 0010	− 0 013	+ 14 267	− 0 232	0 00	4969
111	24 Libræ	+ 3 4087	+ 0 0171	− 0 002	+ 13 909	− 0 364	+ 0 04	4995
112	111 R P L	− 6 9685	+ 1 1915		+ 13 807	+ 0 731		5022
113	27 Libræ β	− 3 2256	+ 0 0117	− 0 009	+ 13 576	− 0 353	+ 0 01	5034
114	32 Libræ ς¹	− 3 3707	+ 0 0148		+ 12 858	− 0 384		5089
115	114 R P L	− 23 3779	+ 7 8320		+ 12 671	+ 2 638		5140
116	5 Coronæ Bor α	+ 2 5291	+ 0 0023	+ 0 009	+ 12 289	− 0 297	+ 0 07	5143
117	24 Serpentis α	+ 2 9112	+ 0 0062	+ 0 009	+ 11 683	− 0 354	+ 0 05	5196
118	115 R P L	− 8 1427	+ 1 0281		+ 10 818	+ 0 991		
119	16 Urs Min 3	− 2 3195	+ 0 2031	− 0 005	+ 10 815	+ 0 276	+ 0 08	5285
120	7 Scorpii δ	+ 3 5356	+ 0 0159	− 0 001	+ 10 611	− 0 413	− 0 01	5303
121	8 Scorpii β¹	+ 3 4776	+ 0 0112	− 0 002	+ 10 293	− 0 441	+ 0 02	5329
122	1 Ophiuchi δ	+ 3 1406	+ 0 0081	− 0 006	+ 9 183	− 0 408	+ 0 13	5414
123	21 Scorpii α	+ 3 6672	+ 0 0150	− 0 001	+ 8 100	− 0 491	+ 0 03	5498
124	S Ophiuchi Var 3	+ 3 4139	+ 0 0109		+ 7 972	− 0 464		
125	40 Herculis 3	+ 2 2962	+ 0 0033	− 0 034	+ 7 187	− 0 316	− 0 45	5604
126	27 Ophiuchi κ	+ 2 8561	+ 0 0013	− 0 022	+ 5 936	− 0 401	− 0 02	5708
127	R Ophiuchi Var 2	+ 3 4400	+ 0 0077		+ 5 204	− 0 187		
128	22 Urs Min ε	− 6 4307	+ 0 3030	+ 0 009	+ 5 170	+ 0 904	− 0 01	5780
129	64 Herculis α Var 1	+ 2 7336	+ 0 0035	− 0 003	+ 4 181	− 0 391	− 0 04	5821
130	42 Ophiuchi θ	+ 3 6787	+ 0 0080	− 0 003	+ 4 038	− 0 528	− 0 02	5851
131	45 Ophiuchi d	+ 3 8221	+ 0 0081		+ 3 675	− 0 551	+ 0 18	5881
132	55 Ophiuchi α	+ 2 7774	+ 0 0030	+ 0 004	+ 2 745	− 0 402	+ 0 20	5911
133	— Scorpii κ	+ 4 1451	+ 0 0079	0 000	+ 2 362	− 0 601	+ 0 01	5970
134		+ 4 1684	+ 0 0068		+ 1 963	− 0 605		
135		+ 4 0844	+ 0 0060		+ 1 785	− 0 594		
136	86 Herculis μ	+ 2 3694	+ 0 0025	− 0 026	+ 1 656	− 0 345	+ 0 74	6021
137	8282 Taylor	+ 4 2604	+ 0 0016		+ 1 051	− 0 621		6061
138	7499 Lacaille	+ 4 1561	+ 0 0042		+ 1 010	− 0 605		
139	7504 Lacaille	+ 4 1577	+ 0 0042		+ 1 015	− 0 606		
140	33 Draconis γ	+ 1 3914	+ 0 0030	0 000	+ 0 577	− 0 203	+ 0 04	6091

119 —The Proper Motion in R A deduced from the *Nautical Almanac for* 1862
126 —The Proper Motions deduced from the *Nautical Almanac for* 1862

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Right Ascension h	m	s	Polar Distance °	′	″	Observations	Fraction of Year
141	— Sagittarii γ^1	4.3		17	56	12.29	119	34	55.1	1	0.59
142	8305 Taylor	5.7		17	56	51.17	133	25	38.2	3	0.56
143		9.0	1	18	1	5.18	131	43	35.8	2	0.60
144	13 Sagittarii μ	4.7		18	5	30.59	111	5	27.2	1	0.67
Lacaille — 145	7622 Lacaille	7.0		18	5	53.38	133	12	18.2	1	0.62
146	7644 Lacaille	6.5		18	8	48.12	132	20	3.0	1	0.54
15 49 — 147	8461 Taylor	6.0		18	14	~~10.50~~	134	9	26.8	1	0.62 10 J
148	22 Sagittarii λ	4.1		18	19	27.12	115	29	37.1	1	0.67
149		9.0		18	22	42.21	135	15	52.6	1	0.62
150	3 Lyræ α	1.0		18	32	15.74	51	20	33.6	2	0.64
151		7.5		18	35	26.69	136	44	13.5	2	0.60
152		7.5	1	18	35	39.84	137	11	6.6	1	0.64
153	R Scuti Var 1	4.4		18	40	6.76	95	51	0.9	2	0.62
154	7872 Lacaille	6.0		18	42	11.14	136	45	9.1	1	0.64
155	7878 Lacaille	7.0		18	42	44.15	136	44	45.1	1	0.62
156	10 Lyræ β Var 1	3.9		18	44	59.09	56	47	41.3	5	0.60
157	13 Lyræ Var 2			18	51	8.15	46	14	3.2	3	0.60
158	17 Aquilæ ζ	3.5		18	59	4.00	76	20	20.6	5	0.61
159	41 Sagittarii π	4.4		19	0	33.07	111	14	22.0	1	0.67
160		9.0	1	19	8	9.62	129	49	15.9	1	0.64
161		7.5		19	9	59.73	123	31	8.8	3	0.61
162	25 Aquilæ ω	5.8		19	11	20.16	78	30	3.4	2	0.63
163	44 Sagittarii ρ^1	4.1		19	13	39.87	108	6	13.0	1	0.67
164		7.5	1	19	16	26.29	129	52	59.0	1	0.64
165	30 Aquilæ δ	3.6		19	18	32.53	87	9	26.7	3	0.61
166		8.5	1	19	24	47.69	129	56	11.3	1	0.64
167	51 Sagittarii h^1	6.0		19	27	38.72	115	1	4.1	1	0.68
168	52 Sagittarii h	5.3		19	28	18.28	115	11	4.6	3	0.62
169		9.0		19	34	15.31	127	17	18.3	1	0.64
170	50 Aquilæ γ	3.0		19	39	41.75	79	43	14.6	2	0.60
171		7.5		19	43	56.86	122	19	35.6	2	0.60
172	53 Aquilæ α	1.3		19	44	2.95	81	29	36.2	2	0.64
173	60 Aquilæ β	4.2		19	48	32.02	83	56	7.1	2	0.64
174	9208 Taylor	5.3		19	55	34.10	122	26	25.1	3	0.56
175	5 Capricorni α^1	4.0		20	9	59.76	102	55	54.8	1	0.68

142 145 151 152 154 155 —Comparison stars for Donati's comet of 1858
150 —Vega 153 —R Scuti Var 1 —Period 71 days —Range—5th to 8.5 magnitude
156 —β Lyræ Var 1 —Period 12.9 days —Range—3.5 to 4.5 magnitude
157 —13 Lyræ Var 2 —Period 46 days —Range—4.2 to 4.6 magnitude
161 —Comparison star for Pandora 172 —Altair

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
141	— Sagittarii γ^1	+ 3 8310	+ 0 0022		+ 0 333	— 0 559		6107
142	8555 Taylor	+ 4 3378	+ 0 0021		+ 0 276	— 0 632	+ 0 13	6112
143		+ 4 2640	+ 0 0011		— 0 095	— 0 622		
144	13 Sagittarii μ	+ 3 5875	+ 0 0009	— 0 004	— 0 482	— 0 523	+ 0 01	6168
145	7622 Lacaille	+ 4 3275	— 0 0002		— 0 516	— 0 651		
146	7614 Lacaille	+ 4 2892	— 0 0010		— 0 770	— 0 692		
147	8161 Taylor	+ 4 3678	— 0 0028	— 0 007	— 1 218	— 0 635	— ~~0 05~~	6228
148	22 Sagittarii λ	+ 3 7073	— 0 0013	— 0 005	— 1 701	— 0 537	+ 0 24	6263
149		+ 4 4148	— 0 0059		— 1 981	— 0 610		
150	3 Lyrae α	+ 2 0130	+ 0 0016	+ 0 017	— 2 814	— 0 290	— 0 28	6355
151		+ 4 1757	— 0 0100		— 3 089	— 0 614		
152		+ 4 1977	— 0 0103		— 3 108	— 0 617		
153	R Scuti Var 1	+ 3 [illegible]070	— 0 0011		— 3 192	— 0 458		
154	7872 Lacaille	+ 4 1695	— 0 0122		— 3 670	— 0 639		
155	7878 Lacaille	+ 4 1685	— 0 0124		— 3 719	— 0 638		
156	10 Lyrae β Var 1	+ 2 2137	+ 0 0015	— 0 002	— 3 912	— 0 315	+ 0 03	6129
157	13 Lyrae Var 2	+ 1 8232	+ 0 0008	— 0 001	— 4 136	— 0 257		6175
158	17 Aquilae ζ	+ 2 7575	+ 0 0003	— 0 006	— 5 112	— 0 587	+ 0 07	6528
159	41 Sagittarii π	+ 3 5731	— 0 0057	— 0 004	— 5 392	— 0 500	+ 0 03	6518
160		+ 4 1379	— 0 0146		— 5 878	— 0 574		
161		+ 3 9167	— 0 0115		— 6 0 9	— 0 512		
162	25 Aquilae ω	+ 2 8161	— 0 0003	— 0 003	— 6 143	— 0 358	— 0 02	6595
163	41 Sagittarii ρ	+ 3 4868	— 0 0061	— 0 003	— 6 336	— 0 180	— 0 03	6619
164		+ 4 1277	— 0 0164		— 6 566	— 0 515		
165	30 Aquilae δ	+ 3 0094	— 0 0018	+ 0 014	— 6 710	— 0 110	— 0 10	6646
166		+ 4 1157	— 0 0181		— 7 252	0 557		
167	51 Sagittarii h^1	+ 3 6510	— 0 0100	— 0 009	— 7 185	— 0 191	0 00	6704
168	52 Sagittarii h^2	+ 3 6516	— 0 0102	+ 0 002	— 7 538	— 0 190	— 0 02	6706
169		+ 4 0051	— 0 0179		— 8 017	— 0 533		
170	50 Aquilae γ	+ 2 8520	— 0 0011	+ 0 001	— 8 152	— 0 373	0 00	6772
171		+ 3 8325	— 0 0160		— 8 757	— 0 198		
172	53 Aquilae α	+ 2 8917	— 0 0014	+ 0 036	— 8 795	— 0 371	— 0 38	6802
173	60 Aquilae β	+ 2 9157	— 0 0033	+ 0 00	— 9 116	— 0 373	+ 0 47	6833
174	9208 Taylor	+ 3 8161	— 0 0175		— 9 690	— 0 183		6877
175	5 Capricorni α^1	+ 3 3316	— 0 0084	— 0 009	— 10 775	— 0 106	0 00	6972

142 ~~147~~ —Proper motions adopted from Mr Stone's list in Vol ~~49~~ *Memoirs of the Royal Astronomical Society*

Mean Positions of Stars for 1862 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
				h	*m*	*s*						
176	6 Capricorni α	5 0		20	10	23 66	102	58	11 7	3	0 67	
177	39095 Lalande	8 0	1	20	14	34 16	106	15	51 4	3	0 61	
178		8 5	1	20	16	43 30	121	12	10 2	1	0 64	
179	11 Capricorni ρ	5 0		20	20	59 04	108	16	2 0	4	0 64	
180		8 0	1	20	26	13 37	121	13	3 2	1	0 64	
181	14 Capricorni τ	5 7		20	31	33 07	105	26	10 2	1	0 58	
182		8 0	1	20	35	48 56	123	58	55 6	1	0 64	
183	50 Cygni α	1 7		20	36	43 61	45	12	41 5	5	0 62	
184		8 0	1	20	43	29 30	124	58	32 5	1	0 64	
185	32 Vulpeculæ	4 7		20	48	40 75	62	27	56 8	2	0 62	
186		8 0	1	20	51	28 75	126	38	27 9	1	0 64	
187	23 Capricorni θ	5 3		20	58	11 12	107	46	42 4	1	0 60	
188		8 5	1	20	59	31 54	129	1	55 3	1	0 64	
189	13 Aquarii ν	4 8		21	2	4 41	101	55	42 3	3	0 64	
190	64 Cygni ζ	3 6		21	7	3 74	60	20	15 7	5	0 72	
191		8 0	1	21	10	53 55	129	32	25 0	1	0 64	
192	22 Aquarii β	3 2		21	24	17 53	96	10	36 2	4	0 75	
193		9 0		21	29	47 18	98	25	59 4	2	0 58	
194	23 Aquarii ξ	5 3		21	30	24 08	98	28	16 2	2	0 65	
195	8 Pegasi ε	3 3		21	37	24 43	80	45	21 5	5	0 73	
196	49 Capricorni δ	3 7		21	39	25 10	106	45	5 5	1	0 68	
197	16 Pegasi	5 5		21	46	47 11	64	43	22 2	6	0 76	
198	31 Aquarii ο	4 7		21	56	10 36	92	49	12 8	1	0 76	
199	34 Aquarii α	3 0		21	58	41 58	90	59	20 4	7	0 72	
200	43 Aquarii θ	5 0		22	9	32 95	~~90~~	28	8 3	5	0 75	91
55 201	~~35~~ Aquarii ζ	5 0		22	21	43 40	90	43	28 4	1	0 83	
202		9 0		22	21	45 03	100	38	23 4	2	0 64	
203	150 R P L	5 5		22	23	45 67	4	35	19 1	8	0 77	
204	62 Aquarii η	4 3		22	28	15 85	90	49	40 3	16	0 77	
205	153 R P L	7 6		22	29	50 56	2	37	14 5	5	0 85	
206	42 Pegasi ζ	4 7		22	34	34 73	79	53	16 6	10	0 75	
207	XXII 844 W B E	9 0		22	40	28 04	87	49	19 8	1	0 79	
208	24 Piscis Australis α	1 3		22	50	1 02	120	21	10 1	13	0 77	
209		9 3		22	51	44 47	85	27	8 7	1	0 73	
210	4 Piscium β	4 7		22	56	51 16	86	55	20 0	2	0 72	

177 —Comparison Star for Hestia in 1861 183 —Deneb 208 —Fomalhaut

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
176	6 Capricorni α^2	+ 3 3314	− 0 0084	+ 0 001	− 10 806	− 0 403	0 00	6974
177	3909 Lalande	+ 3 3969	− 0 0100		− 11 113	− 0 408		
178		+ 3 7420	− 0 0191		− 11 267	− 0 447		
179	11 Capricorni ρ	+ 3 4324	− 0 0115	− 0 006	− 11 575	− 0 403	+ 0 01	7042
180		+ 3 7230	− 0 0200		− 11 944	− 0 431		
181	14 Capricorni τ	+ 3 3631	− 0 0105	− 0 002	− 12 317	− 0 382	+ 0 03	7127
182		+ 3 7723	− 0 0231		− 12 608	− 0 423		
183	50 Cygni α	+ 2 0432	+ 0 0021	− 0 002	− 12 671	− 0 226	0 00	7171
184		+ 3 7793	− 0 0217		− 13 125	− 0 410		
185	32 Vulpeculæ	+ 2 5554	+ 0 0026	− 0 002	− 13 164	− 0 270	0 00	7256
186		+ 3 8001	− 0 0272		− 13 644	− 0 400		
187	23 Capricorni θ	+ 3 3775	− 0 0128	+ 0 004	− 14 068	− 0 344	+ 0 05	7322
188		+ 3 8399	− 0 0306		− 14 155	− 0 390		
189	13 Aquarii ν	+ 3 2699	− 0 0098	+ 0 001	− 14 309	− 0 328	+ 0 01	7344
190	64 Cygni ζ	+ 2 5504	+ 0 0038	− 0 003	− 14 612	− 0 248	+ 0 07	7368
191		+ 3 8146	− 0 0320		− 14 839	− 0 368		
192	22 Aquarii β	+ 3 1628	− 0 0071	− 0 001	− 15 602	− 0 282	0 00	7478
193		+ 3 1928	− 0 0082		− 15 900	− 0 276		
194	23 Aquarii ξ	+ 3 1929	− 0 0083	+ 0 004	− 15 933	− 0 276	+ 0 04	7514
195	8 Pegasi ϵ	+ 2 9452	− 0 0005	+ 0 003	− 16 298	− 0 242	0 00	7561
196	49 Capricorni δ	+ 3 3037	− 0 0128	+ 0 014	− 16 399	− 0 270	+ 0 28	7580
197	16 Pegasi	+ 2 7253	+ 0 0050	+ 0 001	− 16 763	− 0 210	+ 0 01	7627
198	31 Aquarii o	+ 3 10 9	− 0 0051		− 17 200	− 0 226		7672
199	34 Aquarii α	+ 3 0836	− 0 0041	− 0 003	− 17 312	− 0 219	+ 0 02	7688
200	43 Aquarii θ	+ 3 1612	− 0 0075	+ 0 006	− 17 771	− 0 205	+ 0 03	7773
201	55 Aquarii ζ	+ 3 0791	− 0 0033	+ 0 009	− 18 210	− 0 179	− 0 03	7832
202		+ 3 1765	− 0 0085		− 18 210	− 0 189		
203	150 R I T	− 3 7192	− 1 1627	+ 0 018	− 18 313	+ 0 229	− 0 05	78 1
204	62 Aquarii η	+ 3 0795	− 0 0031	+ 0 003	− 18 170	− 0 166	+ 0 06	7868
205	153 R P L	− 8 1315	− 3 7919		− 18 525	+ 0 462		
206	42 Pegasi ζ	+ 2 9851	+ 0 0023	+ 0 001	− 18 680	− 0·149	0 00	7908
207	XXII 814 W B E	+ 3 0547	− 0 0012		− 18 860	− 0 143		
208	24 Piscis Aust α	+ 3 3073	− 0 0210	+ 0 022	− 19 128	− 0 135	+ 0 18	7992
209		+ 3 0408	+ 0 0005		− 19 172	− 0 122		
210	4 Piscium β	+ 3 0524	+ 0 0001	+ 0 001	− 19 300	− 0 112	+ 0 02	8031

Mean Positions of Stars for 1862 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
				h	m	s						
211	53 Pegasi β Var 1	2 5		22	57	5 33	62	39	53 5	1	0 85	
212	54 Pegasi α	2 0		22	57	53 25	75	32	12 5	16	0 75	
213	6 Piscium γ	4 2		23	10	0 65	87	28	16 2	18	0 78	
214	59 43	9 3		23	10	59 17 43	127	25 6	13 4	1	0 78	26
215		8 0	1	23	11	30 98	129	58	31 4	1	0 76	
216		8 0	1	23	12	6 44	127	25	28 9	1	0 78	
217	8 Piscium κ	5 7		23	19	51 44	89	29	58 5	12	0 70	
218	10 Piscium θ	5 0		23	20	58 00	84	22	42 0	1	0 61	
219	158 R P L	5 7		23	27	50 26	3	27	14 0	2	0 78	
220	17 Piscium ι	4 5		23	32	51 16	85	7	16 6	10	0 80	
221	9583 Lacaille	8 0	1	23	38	43 99	128	44	33 2	1	0 84	
222		8 5	1	23	40	57 87	128	47	18 4	1	0 75	
223	— Sculptoris δ	4 3		23	41	43 91	118	53	36 1	7	0 78	
224		8 5		23	41	51 93	142	5	4 4	1	0 82	
225	R Cassiopeæ Var 3	6 0	1	23	51	24 70	39	22	48 8	2	0 83	
226		9 3		23	51	52 94	143	16	38 8	1	0 82	
227	28 Piscium ω	4 3		23	52	13 54	83	54	2 2	9	0 80	

211 —Scheat —Supposed to vary irregularly between 2 2 and 2 7 magnitudes
212 —Markab
225 —R Cassiopeæ Var 3 —Period 426 days —Range—5th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
211	53 Pegasi β Var 1	+ 2 8848	+ 0 0117	+ 0 016	− 19 305	− 0 106	− 0 17	8032
212	54 Pegasi α	+ 2 9797	+ 0 0056	+ 0 003	− 19 323	− 0 107	+ 0 02	8034
213	6 Piscium γ	+ 3 0592	+ 0 0005	+ 0 047	− 19 581	− 0 087	+ 0 01	8105
214		+ 3 2892	− 0 0264		− 19 598	− 0 093		
215		+ 3 3073	− 0 0290		− 19 608	− 0 093		
216		+ 3 2845	− 0 0263		− 19 618	− 0 087		
217	8 Piscium κ	+ 3 0699	0 0000	+ 0 005	− 19 748	− 0 069	+ 0 12	8169
218	10 Piscium θ	+ 3 0498	+ 0 0026	− 0 011	− 19 765	− 0 067	+ 0 06	8177
219	158 R P L	− 0 0268	− 0 4971	+ 0 084	− 19 858	+ 0 010	− 0 01	8213
220	17 Piscium ι	+ 3 0584	+ 0 0030	+ 0 025	− 19 916	− 0 042	+ 0 15	8233
221	9583 Lacaille	+ 3 1715	− 0 0248		− 19 969	− 0 034		
222		+ 3 1611	− 0 0241		− 19 987	− 0 029		
223	— Sculptoris δ	+ 3 1307	− 0 0161	+ 0 003	− 19 992	− 0 026	+ 0 07	8275
224		+ 2078	− 0 0108		− 19 993	− 0 028		
225	R Cassiop Var 3	+ 3 0110	+ 0 0364		− 20 041	− 0 007		
226		+ 3 1356	− 0 0402		− 20 042	− 0 007		
227	28 Piscium ω	+ 3 0671	+ 0 0047	+ 0 010	− 20 044	− 0 005	+ 0 13	8331

211 — Proper Motions adopted from the *British Association Catalogue*
223 — Proper Motions deduced from '*Nautical Almanac for 1862*'

SEPARATE RESULTS

OF

OBSERVATIONS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863.

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
1	21 Andromedæ α	Oct	29	R	0	1	18 56		61	39	59 3	
			30	R		1	18 68			39	59 1	
		Nov	7	M		1	18 74			39	58 9	
			13	M		1	18 61			40	0 5	
2		Oct	10	M	0	6	3 70		148	40	35 9	6 2
		Nov	11	M		6	3 57			40	37 1	6 3
3	88 Pegasi γ	Aug	29	R	0	6	10 93		75	34	43 2	
		Oct	30	R		6	11 11			34	43 4	
			31	R		6	10 95			34	42 8	
		Nov	6	M		6	10 95			34	44 0	
			9	M		6	10 94			34	43 3	
			13	M		6	10 93			34	44 0	
4		Oct	17	R	0	9	19 71	5	149	32	9 0	8 7
		Nov	4	M		9	20 07			32	13 7	9 0
5		Nov	2	M	0	12	44 45		150	26	58 0	9 4
6	41 Piscium d	Sep	26	R	0	13	32 96		82	34	16 0	
7	R Andromedæ Var 1	Aug	29	R	0	16	~~48 24~~ 48 25		52	10	~~54 0~~ 53 9	9 5
			31	R		16	48 19			10	55 2	9 4
		Oct	17	R		16	48 30			10	54 9	7 8
		Nov	3	M		16	47 82			10	56 6	7 7
			6	M		16	~~48 26~~ 48 27			10	56 3	7 8
8		Oct	10	M	0	17	34 80		149	35	28 0	10 0
			29	R		17	34 80	5		35	30 6	9 8
		Nov	4	M		17	34 89			35	30 4	9 7
			13	M		17	34 43			35	29 0	9 4
9	45 Piscium	Sep	26	R	0	18	38 23		83	4	0 1	
		Nov	20	R		18	38 19	6		3	59 8	
			21	R		18	38 16			3	59 5	
10	12 Ceti	Oct	31	R	0	23	2 90		94	42	54 1	
		Nov	7	M		23	2 78			42	53 8	
			9	M		23	2 81			42	54 3	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
10	12 Ceti	Nov	11	M	0	23	2 78		94	42	54 6	
			14	M		23	2 83			42	55 2	
			18	R		23	2 77			42	52 9	
11		Nov	23	R	0	25	18 92	5	76	9	33 2	10 5
12		Oct	10	M	0	28	50 71		89	7	55 6	9 2
			29	R		28	50 72	5		7	56 2	9 8
			30	R		28	50 65	5		7	55 8	
			31	R		28	50 61			7	54 5	9 7
		Nov	2	M		28	50 62			7	54 8	9 7
			4	M		28	50 81			7	55 9	9 5
			5	M		28	50 50			7	56 1	9 4
13		Aug	29	R	0	30	44 80	4	89	7	52 9	9 8
			31	R		30	41 78	5		7	56 5	9 9
		Oct	17	R		30	44 97	5		7	54 4	9 2
			29	R		30	44 87			7	54 0	9 9
			30	R		30	45 13	5		7	53 8	
			31	R		30	14 75			7	53 8	9 7
		Nov	4	M		30	44 74			7	55 6	9 6
			5	M		30	44 72			7	55 1	9 5
			6	M		30	44 60			7	53 7	9 3
			7	M		30	44 77			7	53 0	9 3
14	18 Cassiopeæ α Var 1	Dec	7	M	0	32	45 ~~05~~ 17		34	12	54 3	17
			8	M		32	45 03			12	53 9	
15	1097 Lalande	Nov	3	M	0	34	32 78		89	0	17 3	8 2
			9	M		34	32 82			0	16 8	8 0
			11	M		34	32 63			0	17 1	8 0
			13	M		34	32 81			0	17 9	8 0
			14	M		34	32 71			0	17 9	8 0
			20	R		34	32 77	5		0	16 7	8 2
16	1123 Lalande	Oct	30	R	0	35	38 91		89	3	21 6	9 2
			31	R		35	38 84			3	20 8	9 1
		Nov	11	M		35	38 91	4		3	21 5	9 0
			14	M		35	39 00	5		3	23 4	8 9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
16	1123 Lalande	Nov	20	R	0	35	38 88	5	89	3	21 4	9 0
			21	R		35	38 80	5		3	21 1	8 9
			23	R		35	38 86			3	22 5	8 7
			24	R		35	38 95	6		3	20 9	8 8
17	16 Ceti β	Nov	18	R	0	36	42 64		108	44	19 8	
		Dec	30	M		36	42 73			44	22 0	
18	1198 Lalande	Oct	28	R	0	38	3 46		88	56	36 3	8 7
			29	R		38	3 41	5		56	36 9	8 3
		Nov	4	M		38	3 46	3		56	38 1	8 9
			6	M		38	3 61			56	37 6	8 9
		Dec	8	M		38	3 45	5		56	37 6	8 9
			15	M		38	3 53			56	36 1	8 9
			18	R		38	3 58	4		56	36 2	9 2
			22	R		38	3 52	4		56	37 3	
			23	R		38	3 51	4		56	36 5	8 7
19	0 658 W B E	Oct	17	R	0	38	34 93		82	2	31 3	9 3
			30	R		38	34 99	6		2	33 8	9 5
			31	R		38	34 85			2	31 9	9 3
		Nov	5	M		38	34 89			2	31 4	10 0
			23	R		38	35 06	5		2	32 2	9 5
			24	R		38	34 92	5		2	33 3	9 5
		Dec	18	R		38	34 98	4		2	31 7	9 7
			22	R		38	34 93	4		2	32 6	
			23	R		38	34 94	4		2	33 1	9 5
20	63 Piscium δ	Aug	31	R	0	41	34 52	5	83	9	41 0	
		Nov	20	R		41	34 58			9	40 9	
21		Oct	29	R	0	41	37 12	5	89	6	55 9	9 5
		Nov	2	M		41	37 05	6		6	56 1	9 5
		Dec	7	M		41	36 97			6	54 5	9 0
			14	M		41	37 01	4		6	55 9	9 1
			16	R		41	37 00	4		6	56 2	
			17	R		41	37 04	6		6	57 1	9 5
22		Aug	29	R	0	42	6 11	5	88	49	49 7	10 0
		Oct	10	M		42	5 86			49	48 6	10 0

Separate Results of Madras Meridian Circle Observations in 1863

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
						h	m	s						
6 10	22		Oct	26	R	0	42	~~6 11~~	5	88	49	49 1	9 8	
				31	R		42	6 01	4		49	48 5	9 7	
			Nov	7	M		42	5 70			49	47 8	10 0	
				9	M		42	6 03			49	48 1	10 0	
				23	R		42	6 04	5		49	48 5	9 9	
			Dec	15	M		42	6 09			49	46 8	10 0	
				18	R		42	5 96	6		49	49 2	10 0	
				19	R		42	5 94			49	49 4		
36 91	23	0 806 W B E	Oct	26	R	0	46	~~36 92~~		88	50	6 3	9 1	
			Nov	3	M		46	36 76			50	5 6	10 0	
				4	M		46	36 92			50	5 5	10 0	
				6	M		46	36 69			50	7 7	10 0	
				13	M		46	36 82			50	6 7	9 5	
				14	M		46	36 78			50	6 8	9 5	
				24	R		46	36 97	5		50	5 7	9 6	
	24		Oct	1	M	0	4~~7~~8	52 11		133	47	34 4		
	25	1638 Lalande	Oct	29	R	0	50	37 45		88	57	24 6	7 5	
				30	R		50	37 52	5		57	24 8	7 8	
			Nov	9	M		50	37 49			57	25 3	7 8	
			,	11	M		50	37 42			57	25 1	7 8	
				18	R		50	37 38	6		57	24 7		
			Dec	8	M		50	37 43			57	25 8	7 8	
				10	M		50	37 54			57	24 7	7 8	
	26	1639 Lalande	Oct	28	R	0	50	39 25	5	88	38	55 3	9 2	
			Nov	2	M		50	39 48			38	57 1	8 9	
			,	20	R		50	39 27			38	54 7	8 7	
				23	R		50	39 38			38	53 7		
				28	R		50	39 51	5		38	54 2		
			Dec	7	M		50	39 30			38	54 4	8 9	39 50
			,	14	M		50	39 16			38	55 1	8 9	
39 79	27	271 Lacaille	Oct	9	M	0	52	~~39 82~~		151	26	17 1	7 8	
	28	1784 Lalande	Oct	29	R	0	54	55 91		88	12	48 6	8 1	
			Nov	3	M		54	55 96			12	48 9	8 0	
				5	M		54	55 91			12	47 4	8 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
28	1784 Lalande	~~Oct.~~	6	M	0	54	55 82		88	12	49 1	8 0
			7	M		54	55 91			12	47 3	8 0
			23	R		54	55 93	5		12	48 3	8 3
			24	R		54	55 99	5		12	48 5	8 2
29	71 Piscium ε	Dec	16	R	0	55	50 12		82	50	53 8	
			17	R		55	50 12			50	56 1	
			18	R		55	50 10			50	51 7	
			19	R		55	50 09			50	51 3	
			21	R		55	50 11			50	51 8	
			23	R		55	50 03			50	51 3	
			24	R		55	50 07			50	51 8	
			25	R		55	50 09			50	51 3	
			26	R		55	50 06			50	51 0	
			29	M		55	50 05			50	54 6	
		,	30	M		55	49 97			50	53 3	
30	1879 Lalande	Oct	28	R	0	57	40 70		88	25	16 3	7 9
			30	R		57	40 91			25	15 1	8 0
		Nov	13	M		57	40 88			25	16 8	7 8
		,	14	M		57	40 81			25	16 1	7 8
			18	R		57	40 71	4		25	15 0	
			20	R		57	40 88			25	15 4	7 8
			25	R		7	40 82			25	14 6	7 9
31	0 1031 W B D	Nov	4	M	0	59	4 81		88	6	10 2	9 0
			9	M		59	4 87			6	8 1	9 0
			11	M		59	4 95			6	9 3	9 0
			21	R		59	4 82	6		[illegible]	[illegible] 1	9 2
			28	R		59	4 94			6	7 1	9 0
		Dec	8	M		59	4 68			6	9 9	9 0
			9	M		59	4 91			6	8 6	9 0
32		Oct	6	M	1	2	9 01		87	57	26 8	10 0
			8	M		2	~~[illegible]~~			57	27 9	10 0
		,	10	M		2	8 76	3		57	25 9	10 0
			28	R		2	8 98	5		57	28 1	9 8
			29	R		2	8 96			57	28 7	9 1
			31	R		2	8 91			57	27 5	9 7
		Nov	5	M		2	8 87			57	27 2	9 6

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
32		Nov	6	M	1	2	8 65		87	57	29 1	9 7
			23	R		2	8 84	5		57	27 6	10 0
			24	R		2	8 99	6		57	28 2	9 8
33	I 15 W B I	Oct	30	R	1	2	57 22	5	87	39	1 3	9 7
		Nov	7	M		2	56 91			39	0 2	9 0
			25	R		2	57 04	5		39	1 4	9 0
		Dec	14	M		2	57 18	4		39	2 5	9 0
			15	M		2	57 13			39	0 7	9 0
			17	R		2	57 01			39	3 3	9 7
			18	R		2	57 09			39	2 8	9 5
			19	R		2	57 08			39	1 5	9 9
			21	R		2	57 10			39	2 8	9 5
34	2089 Lalande	Nov	4	M	1	3	24 37		88	10	34 8	8 9
			21	R		3	24 36			10	35 1	8 0
			28	R		3	24 40			10	35 2	8 7
		Dec	9	M		3	24 54			10	35 4	8 9
			23	R		3	24 31	6		10	35 1	9 0
			24	R		3	24 30	4		10	35 1	
			26	R		3	24 42	4		10	34 1	
35	33 Ceti	Dec	26	R	1	3	30 55	4	88	17	4 6	
			29	M		3	30 85	2		17	6 0	
			30	M		3	30 60			17	6 1	
			31	M		3	30 53			17	6 1	
(147) — 36	86 Piscium ζ	Aug	31	R	1	6	34 49	5	83	9	1 1	
		Sep	28	R		6	34 50			9	0 4	
		Dec	19	L		6	34 45			9	0 6	
37	I 101 W B I	Oct	28	R	1	7	42 79		87	54	19 1	9 2
		Nov	18	L		7	42 70			54	16 5	
			23	R		7	42 66			54	18 2	8 2
			24	R		7	42 87	6		54	17 5	9 0
			28	R		7	42 75			54	17 7	8 9
		Dec	10	M		7	42 70			54	17 5	9 0
			14	M		7	42 73			54	19 5	9 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
38	1 Ursæ Minoris α *s p*	Apl	8	M	1	8	59 31	3	1	25	15 1	
	s p		10	M		8	59 82	3		25	17 0	
	s p		13	M		8	59 53	3		25	15 1	
	s p		15	M		9	0 06	3		25	11 4	
	s p	May	9	M		8	59 61	3		25	15 6	
	s p		19	R		8	59 69	3		25	15 3	
	s p		26	R		8	59 95	3		25	15 4	
		Dec	12	M		8	59 64	2		25	14 5	
			17	R		8	59 13	2		25	16 4	
39		Oct	29	R	1	9	13 09		87	42	21 2	9 7
			30	R		9	13 19	5		42	24 6	9 8
			31	R		9	12 97			42	25 0	9 6
		Nov	9	M		9	13 05			42	21 3	[illegible]
			11	M		9	12 95			42	21 7	10 0
			13	M		9	12 68			42	21 9	10 0
			14	M		9	12 92			42	24 6	9 7
			21	R		9	13 03			42	23 9	9 8
40	45 Ceti θ	Aug	31	R	1	17	10 50		98	53	29 0	
		Oct	29	R		17	10 51			53	29 3	
		Nov	25	R		17	10 47			53	28 7	
			30	R		17	10 50			53	28 9	
		Dec	16	R		17	10 63			53	29 0	
			17	R		17	10 52			53	31 0	
			21	R		17	10 55			53	29 9	
			23	R		17	10 52			53	30 2	
			25	R		17	10 56			53	28 1	
			26	R		17	10 59			53	29 1	
			30	M		17	10 47			53	30 8	
			31	M		17	10 41			53	29 9	
41		Nov	28	R	1	23	24 98	5	87	44	17 1	8 0
		Dec	8	M		23	24 91			44	17 3	8 1
42	R Piscium Var 1	Dec	23	R	1	23	34 40	4	87	49	~~43 5~~	10 2	43 4
43	99 Piscium η	Aug	31	R	1	24	9 37	5	75	21	43 5	
9 36		Oct	26	R		24	~~9 37~~	5		21	13 8	
		Nov	14	M		24	9 30			21	44 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
43	99 Piscium η	Nov	21	R	1	24	9.32		75	21	43.1	
			23	R		24	9.35	5		21	42.4	
		Dec	17	R		24	9.32			21	45.0	
			21	R		24	9.29			21	43.3	
		,,	25	R		24	9.30			21	42.6	
			26	R		24	9.31	5		21	43.0	
			31	M		24	9.35			21	43.4	
44	102 Piscium π	Oct	26	R	1	29	50.23		78	33	39.1	
45	525 Taylor	Nov	4	M	1	30	7.09		148	50	23.0	5.9
			5	M		30	6.86			50	24.3	5.9
46	539 Taylor	Nov	3	M	1	31	43.84	5	148	58	15.6	5.5
			6	M		31	43.49	5		58	17.6	5.7
47	— Eridani α	Nov	18	R	1	32	36.63	5	147	56	2.4	
		Dec	22	R		32	36.78			56	2.9	
48	106 Piscium ν	Oct	29	R	1	34	18.22		85	12	25.4	
		Nov	14	M		34	18.22			12	26.7	
		,,	21	R		34	18.24			12	24.4	
		Dec	8	M		34	18.30			12	25.7	
		,,	11	M		34	18.18			12	24.8	
49	503 Lacaille	Nov	11	M	1	35	40.99		151	41	37.3	7.5
			25	R		35	40.93			41	36.2	8.3
50	507 Lacaille	Nov	7	M	1	37	6.61		151	28	49.2	6.0
			28	R		37	6.38			28	51.4	6.3
51	110 Piscium ο	Nov	21	R	1	38	9.67		81	31	59.8	
52		Oct	28	R	1	39	51.31		149	27	39.0	9.0
		Nov	2	M		39	51.70	5		27	41.1	9.5
53		Nov	11	M	1	46	7.59	5	148	58	15.5	9.7
		Dec	8	M		46	7.53	3		58	14.7	9.6

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
54	6 Arietis β	Oct	29	R	1	47	4 62		69	51	48 4	
		Nov	1	M		47	4 62			51	48 9	
			9	M		47	4 59			51	48 4	
			18	R		47	4 59			51	48 4	
			21	R		47	4 57			51	48 5	
			30	R		47	4 57			51	49 1	
		Dec	7	M		47	4 10			51	49 8	
			10	M		47	4 68			51	49 3	
			11	M		47	4 59			51	49 9	
			12	M		47	4 57			51	47 7	
			19	R		47	4 72			51	48 6	
			24	R		47	4 70			51	47 8	
			31	M		47	4 61			51	49 1	
55		Nov	7	M	1	48	31 03	5	150	5	31 2	9 3
			25	R		48	31 15	6		5	30 8	9 5
56	582 Lacaille	Nov	3	M	1	50	52 87		145	44	39 0	8 7
			6	M		50	52 65			44	40 1	8 5
57		Nov	7	M	1	59	21 53		150	2	49 2	9 6
			25	R		59	21 63			2	50 6	9 5
58	13 Arietis α	Nov	11	M	1	59	27 26		67	11	16 2	
			28	R		59	27 34			11	11 9	
			30	R		59	27 35	5		11	11 9	
		Dec	8	M		59	27 28			11	15 9	
			11	M		59	27 31			11	15 5	
			14	M		59	27 32			11	15 8	
			15	M		59	27 30			11	14 5	
			16	R		59	27 22			11	14 2	
			24	[illegible]		59	27 31			11	15 5	
			29	M		59	27 35			11	15 9	
59	630 Lacaille	Nov	5	M	1	59	46 48		145	32	17 [illegible]	6 0
			13	M		59	46 48			32	18 3	6 0
60		Oct	29	R	2	1	1 61	5	149	49	19 8	9 6
		Nov	2	M		1	1 56	6		49	23 9	9 6

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	m	s		°				
61	697 Taylor	Nov	6	M	2	1	44 07		145	41	16 5	7 0	
		Dec	17	R		1	43 78	5		41	15 2	7 8	
62	17 Arietis η	Dec	19	R	2	5	8 15		69	26	5 5		
63	677 Lacaille	Nov	7	M	2	6	51 10	5	149	47	52 8	8 0	
64		Nov	11	M	2	6	56 71		148	39	16 7	9 8	
65	67 Ceti	Dec	7	M	2	10	9 09		97	3	19 4		9 05
			8	M		10	9 01			3	20 0		
			10	M		10	9 01			3	19 2		
			11	M		10	9 01			3	19 2		
			14	M		10	9 05			3	21 2		
			20	M		10	9 10			3	21 0		
66	68 Ceti o Var 1	Dec	17	R	2	12	25 61		93	36	8 6	7 8	
67		Oct	27	R	2	13	56 12	5	148	27	13 6	9 7	
		Nov	4	M		13	56 25	4		27	14 2	9 6	
68		Nov	9	M	2	15	38 11	5	152	34	27 8	7 1	
		Dec	18	R		15	37 61	5		34	28 0	9 0	
69	816 Taylor	Oct	26	R	2	19	6 27	5	117	26	11 8	8 5	
			27	R		19	6 31	5		26	15 0	8 0	
70	73 Ceti ξ	Nov	18	R	2	20	52 68		82	9	20 7		
		"	23	R		20	52 59			9	21 8		
			28	R		20	52 70			9	20 8		
		Dec	7	M		20	52 66			9	20 8		66
			10	M		20	52 61			9	21 1		
		"	12	M		20	52 66			9	20 6		
			14	M		20	52 64	5		9	22 8		
			15	M		20	52 60			9	21 2		
71	— Horologii λ	Nov	13	M	2	21	4 08		150	55	36 9	6 0	
		Dec	19	R		21	1 21			55	31 7	7 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
72	26 R P L	Nov	14	M	2	22	11 74	3	3	33	14 8	
		„	26	R		22	11 90	2		33	10 1	
73		Nov	9	M	2	24	13 73		152	35	55 2	9 3
		Dec	18	R		24	13 58	5		35	56 7	9 5
74		Oct	26	R	2	27	23 67		147	12	29 7	8 7
			27	R		27	23 69	4		12	28 1	8 8
75	31 Arietis	Nov	23	R	2	29	9 86		78	8	55 0	
76	849 Lacaille (1st)	Nov	9	M	2	35	59 20		150	9	25 0	7 8
77	849 Lacaille (2nd)	Dec	10	M	2	36	3 93		150	9	32 8	7 9
			14	M		36	3 78	2		9	31 6	8 0
78	86 Ceti γ	Oct	28	R	2	36	12 30	6	87	20	40 8	
		Nov	20	R		36	12 23			20	37 5	
		Dec	7	M		36	12 12			20	37 6		12.12
			8	M		36	12 17			20	38 5	
			12	M		36	12 21			20	36 4	
			18	R		36	12 26	5		20	11 5	
79	38 Arietis	Nov	23	R	2	37	29 97	5	78	7	55 9	
80	868 Lacaille	Oct	26	R	2	38	31 18		117	13	27 5	8 0
			27	R		38	31 17			13	26 4	8 5
81		Dec	15	M	2	43	16 32		118	0	51 6	8 7
82		Oct	26	R	2	44	27 54	5	118	14	5 1	8 8
			27	R		44	27 45			14	5 9	8 7
83		Nov	26	R	2	45	12 36	5	76	28	9 1	9 0
84	48 Arietis ε	Oct	26	R	2	51	22 97		69	12	38 0	
			27	R		51	23 01			12	37 7	
85		Dec	8	M	2	52	~~20 72~~	∧	150	17	22 3	8

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
86	92 Ceti α	Nov	23	R	2	55	7 21		86	27	0 5	
			24	R		55	7 23			27	0 0	
			26	R		55	7 15			27	0 4	
			28	R		55	7 12			27	0 2	
		Dec	10	M		55	7 14			27	0 4	
			12	M		55	7 16			26	59 6	
		,	22	R		55	7 17			27	1 0	
			23	R		55	7 20			27	1 2	
87	25 Persei ρ Var 2	Dec	11	M	2	56	21 33		51	41	38 0	
88	26 Persei β Var 1	Dec	19	R	2	59	15 82		49	34	55·4	
89	1047 Taylor	Nov	7	M	2	59	50 11		151	20	1 8	6 0
90	33 R P L	Jan	9	M	3	0	29 64	5	5	35	4 3	
			10	M		0	30 02	3		35	3 3	
91	57 Arietis δ	Oct	26	R	3	3	47 94		70	47	40 7	
			27	R		3	47 94			47	38 6	
		Nov	23	R		3	47 96			47	39 8	
			21	R		3	47 99			47	39 4	
		Dec	30	M		3	48 00			47	39 9	
92		Jan	16	M	3	12	38 90	5	130	50	30 1	8 5
		Dec	14	M		12	38 92	4		50	30 7	8 5
			22	R		12	39 02			50	30 7	9 0
93	61 Arietis τ	Nov	23	R	3	13	19 29		69	20	59 3	
			21	R		13	19 37			20	59 4	
94		Oct	26	R	3	14	49 93	5	150	6	32 6	9 2
95	1 Tauri o	Dec	12	M	3	17	26 50		81	27	20 8	
96		Oct	27	R	3	20	16 88	5	149	19	7 8	9 0
97	R Persei Var 3	Dec	22	R	3	21	20 25		54	48	15 6	9 7
			23	R		21	20 20	6		48	15 2	10 2

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No. of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
98		Nov	18	R	3	21	56 75		88	12	37 5	7 5
99		Nov	13	M	3	25	51 94		87	53	32 0	9 0
			27	R		25	51 95			53	28 5	9 4
100	1193 Lacaille	Dec	8	M	3	35	14 00		146	35	24 7	8 3
101	1200 Lacaille	Nov	14	M	3	36	23 16		146	40	41 3	6 7
102		Nov	26	R	3	38	3 95	5	146	13	2 8	9 0
103	25 Tauri η	Jan	5	M	3	39	20 69		66	19	16 4	
			6	M		39	20 75			19	17 6	
			8	M		39	20 73			19	18 1	
			10	M		39	20 72			19	18 4	
		Oct	27	R		39	20 64	5		19	19 6	
			28	R		39	20 65			19	19 4	
		Dec	9	M		39	20 59			19	19 1	
			15	M		39	20 66			19	17 6	
			22	R		39	20 55			19	18 5	
			23	R		39	20 59			19	18 6	
104		Feb	5	R	3	45	8 33	5	76	27	54 2	
		Nov	26	R		45	8 18	5		27	58 6	8 6
		Dec	22	R		45	8 35	5		27	56 0	9 0
105	34 Eridani γ^1	Jan	5	M	3	51	38 22		103	54	1 1	
			6	M		51	38 23			54	1 9	
			8	M		51	38 23			54	2 1	
		Nov	25	R		51	38 25			54	2 0	
			27	R		51	38 25			54	3 0	
		Dec	9	M		51	38 20			54	2 7	
			14	M		51	38 29			54	4 7	
			22	R		51	38 34			54	3 0	
106		Nov	24	R	3	53	2 96		128	25	35 7	10 0
107	35 Tauri λ Var 1	Jan	9	M	3	53	5 55	5	77	53 ~~52~~	58 3 ~~6 9~~	
			10	M		53	5 63			53 ~~54~~	59 3 ~~7 9~~	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
108		Dec	12	M	3	53	38 68	5	143	8	33 2	8 1
109	37 Tauri A^1	Oct	27	R	3	56	35 92	5	68	17	45 3	
			28	R		56	35 86	5		17	47 1	
		Dec	22	R		56	35 87			17	46 2	
110	7581 Lalande	Feb	5	R	3	58	10 37	6	74	52	31 5	9 0
			9	R		58	10 41	5		52	30 7	
111		Feb	2	R	4	3	20 55	4	68	30	27 2	10 0
		Nov	24	R		3	20 45	4		30	28 3	10 3
112	7764 Lalande	Feb	5	R	4	3	24 88		74	44	0 8	8 5
		,	9	R		3	24 96	5		44	2 1	8 3
113		Nov	27	R	4	3	41 01		146	56	38 5	9 2
114	38 Eridani o^1	Jan	15	M	4	5	10 70		97	11	51 4	
		Dec	18	R		5	10 74			11	51 7	
115	1418 Lacaille	Jan	16	M	4	12	25 56	5	143	39	54 7	8 0
		Oct	28	R		12	25 52			39	54 7	8 2
116		Nov	27	R	4	13	44 17	5	70	51	40 1	8 8
		Dec	12	M		13	44 12			51	40 6	9 0
117		Feb	2	R	4	15	37 57	6	128	39	56 9	9 5
			5	R		15	37 80	4		39	59 9	9 5
118		Dec	8	M	4	16	44 91	3	149	4	34 4	8 7
119	74 Tauri ε	Jan	5	M	4	20	37 18		71	7	35 5	
			6	M		20	37 11			7	36 9	
			9	M		20	37 23			7	36 8	
			10	M		20	37 10			7	37 0	
			14	M		20	37 26			7	35 8	
			15	M		20	37 28			7	36 0	
			17	R		20	37 16			7	35 8	
		Oct	28	R		20	37 17			7	38 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No. of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
119	74 Tauri ε	Nov	24	R	4	20	37 17		71	7	37 6	
			25	R		20	37 18			7	36 4	
		Dec	9	M		20	37 12			7	38 4	
120		Dec	23	R	4	21	58 85		80	28	12 0	10 2
121	1520 Lacaille	Dec	12	M	4	26	39 85	3	147	29	8 1	8 7
122	87 Tauri α	Jan	8	M	4	28	3 67		73	46	9 6	
			9	M		28	3 63			46	10 9	
			10	M		28	3 77			46	10 6	
			11	M		28	3 86			46	9 8	
			15	M		28	3 83			46	10 5	
			16	M		28	3 69			46	10 3	
			29	R		28	3 76			46	10 3	
		Oct	26	R		28	3 65			46	12 1	
		Nov	24	R		28	3 67			46	11 3	
		Dec	9	M		28	3 90			46	12 2	
			19	R		28	3 64			46	11 4	
123		Jan	20	R	4	28	26 16		140	14	24 5	9 0
		Feb	5	R		28	25 99			14	23 2	9 0
124		Jan	21	R	4	31	41 41	5	142	59	40 9	9 5
		Dec	17	R		31	41 10	6		59	44 2	9 3
125		Jan	21	R	4	32	54 89	5	130	48	20 4	9 5
		Feb	9	R		32	55 02	3		48	21 8	
126	1566 Lacaille	Dec	12	M	4	35	44 77		148	28	31 1	8 0
127		Nov	26	R	4	36	15 67	5	64	19	22 1	9 5
			27	R		36	16 01	5		19	24 0	9 5
128	1663 Taylor	Jan	19	R	4	36	48 54	3	138	48	16 4	8 0
129		Jan	24	R	4	39	28 28	4	128	57	41 1	9 5
		Feb	5	R		39	28 19	3		57	38 8	

Separate Results of Madras Meridian Circle Observations in 1863

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
						h	m	s						
	130	1598 Lacaille	Feb	12	R	4	41	35 31	5	128	21	43 7	7 0	
			Dec	18	R		41	35 29	5		21	45 8	8 0	
	131		Jan	23	R	4	43	18 87	5	130	41	18 3	9 5	
			Dec	17	R		43	18 57			41	21 6	9 7	
21 86	132	97 Tauri *i*	Dec	22	R	4	43	~~21 60~~		71	23	49 8		
21 91				23	R		43	~~21 66~~			23	49 6		
	133	1625 Lacaille	Jan	19	R	4	44	57 43		140	1	53 5	8 5	
				21	R		44	57 40			1	51 5	8 0	
	134		Jan	24	R	4	45	26 85	5	129	25	9 4	9 0	
			Feb	14	R		45	26 97	5		25	8 5	8 7	
	135	3 Aurigæ *i*	Jan	16	M	4	48	4 44		57	3	16 8		
				17	R		48	4 45	4		3	16 8		
			Feb	9	R		48	4 16			3	17 0		
	136	1761 Taylor	Jan	22	R	4	49	57 63		129	18	43 8	7 5	
	137	7 Aurigæ ε Var 1	Jan	21	R	4	52	8 50		46	23	0 5		
			Feb	13	R		52	8 62	5		23	0 8		
14 42	138	1780 Taylor	Jan	20	R	4	52	~~15 45~~		144	38	52 0	9 0	
	139		Jan	24	R	4	52	17 06	5	129	39	57 2	9 0	
	140	R Leporis Var 1	Jan	6	M	4	53	21 99	6	105	0	54 1	6 0	
				8	M		53	22 08			0	54 1		
				9	M		53	22 26			0	54 8		
				10	M		53	22 11			0	55 0		
				15	M		53	22 17			0	53 9	6 5	
	141	102 Tauri *i*	Dec	22	R	4	54	54 ~~96~~ 43		68	36	35 9		[43]
	142		Jan	23	R	4	55	54 58		130	17	47 1	9 0	
			Feb	12	R		55	54 44			17	46 0	9 2	
				17	R		55	54 56	6		17	45 1	9 0	

Separate Results of Madras Meridian Circle Observations in 1863

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
						h	m	s						
	143	1811 Taylor	Jan	22	R	4	57	1.08	5	129	55	8.7	6.5	
	144	1705 Lacaille	Feb	14	1	4	57	23.66		129	16	37.2	8.1	
			Dec	12	M		57	23.50			16	38.0	8.0	
	145	2 Leporis ε	Jan	17	R	4	59	39.78		112	33	27.8		
				19	1		59	39.64			33	26.9		
				20	R		59	39.76			33	26.7		
				21	R		59	39.69	5		33	26.0		
			Feb	9	P		59	39.82	5		33	27.3		
				16	R		59	39.69			33	27.1		
	146	15 Orionis	Nov	25	P	5	1	51.11		74	34	2.6		
				26	R		1	51.05			34	3.1		
	147		Jan	23	R	5	6	0.29		131	45	17.7	9.0	
			Feb	12	R		6	0.25			45	16.8	9.0	
	148	13 Aurigæ α	Feb	14	R	5	6	31.36		44	8	~~28.4~~		140
	149		Jan	22	R	5	6	50.12	5	129	6	7.7	8.0	
			Feb	13	R		6	19.90			6	8.0	8.5	
	150	19 Orionis β	Jan	15	M	5	7	57.11		98	21	45.8		
				16	M		7	57.09			21	45.8		
				29	P		7	57.33			21	46.8		
			Dec	23	R		7	57.36			21	50.3		
	151		Jan	23	R	5	12	19.77	5	129	40	10.5	9.5	
			Feb	12	R		12	19.86	5		40	9.5	9.3	
	152	1822 Lacaille	Jan	20	R	5	15	41.44		141	43	16.4	8.0	
36			Feb	14	R		15	~~41.63~~	3		43	17.6	7.8	
	153	112 Tauri β	Jan	9	M	5	17	38.04		61	30	44.9		
				16	M		17	37.95			30	43.2		
				21	R		17	37.94			30	41.1		
				29	R		17	37.91			30	44.8		
				30	P		17	37.96			30	44.4		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
153	112 Tauri β	Feb	2	R	5	17	37 98		61	30	44 2	
			5	R		17	37 89			30	43 7	
154		Jan	22	R	5	18	41 05		129	58	4 4	8 5
		Feb	13	R		18	40 94			58	4 6	8 9
		Dec	10	M		18	40 84			58	4 3	8 7
155		Jan	23	R	5	19	43 42		131	3	57 6	9 5
156	31 Orionis δ Var 1	Jan	14	M	5	25	0 39		90	24	13 5	
			19	R		25	0 43			24	14 3	
			20	R		25	0 58			24	14 0	
		Feb	14	R		25	0 58	5		24	14 5	
			16	R		25	0 49			24	13 4	
			18	R		25	0 54			24	14 2	
		Nov	27	R		25	0 48			24	14 2	
157	11 Leporis α	Jan	21	R	5	26	41 34	6	107	55	22 7	
			22	R		26	41 31			55	22 6	
			24	R		26	41 39			55	22 8	
		Feb	5	R		26	41 38			55	21 6	
		„	17	R		26	41 36			55	22 0	
158	46 Orionis ε	Jan	19	R	5	29	15 81	5	91	17	33 5	
			23	R		29	15 77			17	33 9	
		Feb	2	R		29	15 68			17	33 2	
159	123 Tauri ζ	Jan	29	R	5	29	27 16		68	56	41 2	
160		Feb	4	R	5	31	35 77	5	128	42	15 9	
		Dec	10	M		31	35 73			42	17 8	9 1
			23	R		31	35 72			42	19 0	9 3
161		Feb	3	R	5	32	39 88		128	11	17 4	9 0
		Dec	23	R		32	39 82	4		41	18 4	9 3
162	— Columbæ α	Jan	20	R	5	34	41 34		124	8	57 2	
		„	22	R		34	41 39			8	57 5	
			23	R		34	41 42	5		8	56 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
162	— Columbæ α	Feb	5	R	5	34	41 30		124	8	56 0	
			18	R		34	41 10			8	57 4	
163	2113 Taylor	Jan	24	R	5	35	6 11	5	130	45	36 7	8 5
164		Feb	17	R	5	36	41 64		129	57	52 4	9 2
165		Feb	2	R	5	38	21 [illegible]8	4	130	5	29 1	9 0
			4	R		38	21 73	5		5	[illegible]6 1	
166	1984 Lacaille	Jan	24	R	5	40	39 94	5	130	15	21 1	7 5
		Feb	3	R		40	39 80			15	20 6	8 0
167	54 Orionis χ^1	Feb	27	R	5	46	16 08		69	45	1[illegible] 5	
		Dec	23	R		46	16 27			45	12 3	
168	2036 Lacaille	Feb	12	R	5	46	18 80		129	47	14 8	8 0
		Dec	14	M		46	18 73			47	16 1	8 2
169	58 Orionis α Var 2	Jan	16	R	5	47	45 37		82	37	19 1	
			22	R		47	45 44			37	18 6	
			23	R		47	45 30			37	18 1	
			24	R		47	45 25			37	18 0	
			30	R		47	45 31			37	17 9	
		Feb	2	R		47	45 29			37	18 3	
			3	R		47	45 17			37	17 7	
			5	R		47	45 27			37	18 4	
			9	R		47	45 21			37	17 9	
			10	R		47	45 33			37	18 0	
		Nov	26	R		47	45 36			37	19 6	
			27	R		47	45 33			37	19 8	
170		Feb	13	R	5	49	34 77		130	1	20 8	9 4
171		Feb	12	R	5	52	39 45	4	129	32	35 1	9 0
172		Jan	24	R	5	53	14 82		131	7	15 1	8 0
		Feb	4	R		53	14 76			7	15 0	

Separate Results of Madras Meridian Circle Observations in 1863

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
						h	m	s		°				
	173	2101 Lacaille	Jan	22	R	5	54	20 15	3	143	26	~~24 3~~	7 5	
			Feb	11	R		54	20 12			26	~~24 7~~	8 7	
	174	62 Orionis χ	Dec	23	R	5	55	47 02		69	51	~~44 9~~		
	175		Jan	30	R	5	56	7 44		129	57	13 8	9 5	
			Feb	3	R		56	7 50	6		57	11 7	9 0	
	176	2301 Taylor	Dec	14	M	5	58	28 90		148	6	20 5	6 3	
	177		Feb	13	R	5	59	38 82		129	49	48 7	8 2	
			Nov	26	R		59	39 02	5		49	47 0		
	178	67 Orionis ν	Jan	14	M	5	59	44 93		75	13	6 4		
				16	R		59	44 99			13	8 0		
				22	R		59	44 94	5		13	7 7		
				23	R		59	45 01			13	6 8		
				24	R		59	44 99			13	7 3		
				29	R		59	44 98			13	7 8		
			Feb	2	R		59	44 90			13	7 5		
				9	R		59	45 00			13	6 9		
				10	R		59	45 00			13	7 9		
				16	R		59	45 00			13	8 5		
				23	R		59	45 10			13	7 3		
			Mar	2	R		59	45 00			13	7 8		
	179		Feb	17	R	6	3	37 31		129	58	10 8	8 8	
				28	R		3	37 31			58	11 2	8 8	
	180		Feb	11	R	6	4	20 19	5	128	2	33 8	7 0	
				14	R		4	20 21			2	33 4	7 8	
36 41	181	7 Geminorum η	Jan	30	R	6	6	~~36 46~~		67	27	26 4		
36 43			Nov	26	R		6	~~36 39~~			27	~~26 5~~		26
36 42				27	R		6	~~36 30~~			27	~~27 0~~		27
	182		Jan	24	R	6	8	47 70	5	131	54	43 4	9 0	
			Feb	4	R		8	47 74			54	42 5		
	183		Feb	18	R	6	8	51 34	4	130	31	34 1		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	*m*	*s*						
184	13 Geminorum μ	Jan	16	R	6	14	40 58		67	25	11 5		
			30	R		14	40 34			25	12 0		
		Feb	10	R		14	40 34			25	11 6		
			12	R		14	40 34			25	12 1		
			18	R		14	40 36			25	11 3		
			28	R		14	40 44	5		25	11 3		
		Nov	26	R		14	40 27			25	12 1		
185		Feb	14	R	6	21	54 66		129	36	27 4	9 3	
			28	R		21	54 46	6		36	27 6	9 5	
186	2524 Taylor	Jan	30	R	6	23	~~26 01~~		131	3	1 3	7 5	25 41
187	24 Geminorum γ	Jan	16	R	6	29	47 90		73	29	14 3		
		Feb	10	R		29	47 77			29	14 4		
			12	R		29	47 72			29	15 8		
		,	14	R		29	47 84			29	14 6		
			18	R		29	47 87			29	14 7		
			21	R		29	47 77			29	14 8		
			28	R		29	47 85			29	14 7		
		Mar	2	R		29	47 69			29	15 3		
			3	M		29	47 81			29	15 3		
			4	M		29	47 81			29	14 5		
		,	5	M		29	47 89			29	14 6		
			6	M		29	47 84			29	13 2		
188		Jan	17	R	6	31	24 41	5	140	0	10 4	9 0	
		,	21	R		31	24 37	5		0	8 2	9 0	
189		Jan	30	R	6	33	51 92	6	130	51	15 0	9 0	
		Feb	4	R		33	51 92			54	13 5	9 0	
190		Feb	24	R	6	34	28 58	5	130	27	51 9	7 7	
191	51 Cephei (Hev)	Jan	19	R	6	35	8 49	3	2	45	17 5		
			20	R		35	8 75	3		45	16 7		
			24	R		35	8 76	3		45	15 1		
		Feb	3	R		35	8 67	3		45	16 5		
			9	R		35	8 13	3		45	16 6		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
191	51 Cephei (Hev)	Feb	11	R	6	35	8 35	3	2	45	15 0	
			17	R		35	8 88	3		45	15 5	
		Mar	2	R		35	8 30	2		45	17 3	
192		Feb	13	R	6	36	11 01		130	20	57 8	8 8
			14	R		36	11 15	3		20	57 0	9 0
193	31 Geminorum ξ	Feb	27	R	6	37	35 84		76	57	35 9	
			28	R		37	35 94			57	36 5	
194	9 Canis Majoris α	Jan	~~9~~	M	6	39	6 56		106	32	51 7	
195		Feb	24	R	6	42	21 57		130	56	51 6	8 8
			26	R		42	21 37			56	52 4	9 0
196		Jan	21	R	6	43	38 73		128	30	20 3	9 0
		Feb	4	R		43	38 63			30	18 9	8 5
197	2721 Taylor	Jan	17	R	6	44	52 18	5	144	35	58 2	9 0
		Feb	13	R		44	52 05			35	58 9	8 8
198	2500 Lacaille	Feb	27	R	6	46	57 71	5	130	23	14 8	7 8
199	2516 Lacaille	Feb	17	R	6	48	21 45		130	31	34 7	8 2
			23	R		48	21 60	5		31	34 4	
200		Feb	25	R	6	49	40 68	5	129	8	13 8	9 3
201	21 Canis Majoris ε	Jan	7	M	6	53	14 57		118	47	15 7	
			20	R		53	14 50			47	17 0	
		Feb	3	R		53	14 46			47	15 8	
		,,	5	P		53	14 52			47	15 6	
		,,	13	R		53	14 61			47	18 3	
		,,	21	R		53	14 54			47	16 9	
202		Feb	24	R	6	53	45 82		129	47	27 6	9 0
203	2805 Taylor	Feb	14	R	6	55	58 22		62	12	25 2	7 6
204	43 Geminorum ζ	Jan	15	M	6	55	58 85		69	13	56 3	~~5 5~~

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	*m*	*s*					
204	43 Geminorum 3	Feb	26	R	6	55	58 83		69	13	57 3	
			27	R		55	58 85			13	56 5	
		Nov	27	R		55	58 89			13	56 8	
205	23 Canis Majoris γ	Feb	2	P	6	57	33 59		105	26	0 9	
			11	R		57	33 63	5		25	59 8	
			13	R		57	33 65			26	0 8	
			17	R		57	33 66			25	59 7	
			21	R		57	33 70	4		26	0 5	
		Mar	2	R		57	33 53			26	2 2	
			13	M		57	33 63			26	0 0	
206	R Geminorum Var 2	Jan	17	R	6	59	6 24		66	5	20 0	8 0
			20	R		59	6 47	5		5	20 8	8 0
		Feb	25	R		59	6 28			5	20 1	7 2
207		Jan	16	R	6	59	8 11	5	66	59	50 1	9 0
208		Feb	24	R	6	59	47 20	5	129	42	59 4	7 8
209	2851 Taylor	Mar	11	M	7	0	48 71		145	44	43 8	7 8
210	R Canis Minoris Var 1	Jan	21	R	7	1	10 41		79	45	46 7	8 7
		Feb	14	R		1	10 39	4		45	46 2	7 9
			23	R		1	10 39	6		45	46 7	8 5
211		Mar	16	M	7	4	55 62	5	130	42	26 1	9 0
212	2899 Taylor	Feb	5	P	7	5	45 64		130	8	42 2	8 3
213		Feb	27	R	7	5	49 92	5	129	23	7 9	9 0
214		Feb	25	R	7	6	36 63	5	129	2	39 0	7 3
215	2696 Lacaille	Jan	21	R	7	9	20 62		140	58	44 6	8 5
		Feb	18	R		9	20 61			58	46 6	8 3
216	2940 Taylor	Jan	23	R	7	9	26 25		129	57	35 9	8 5
217	54 Geminorum	Nov	27	R	7	10	13 09		73	12	57 4	

Sepaı ate Results of Madras Meıidıan Oıı cle Obseı vatıons ın 1863

Numbeı	Star	Date of Observatıon		Obseıver	Mean Rıght Ascensıon 1863			No of Wıres	Mean Polaı Distance 1863			Magnıtude
					h	m	s					
218		Maı	13	M	7	10	11 44		131	52	5 3	9 5
219	55 Gemınoıum δ	Feb	2	P	7	11	56 36		67	46	7 2	
			3	R		11	56 31			46	7 3	
		,	4	R		11	56 32			36	8 7	
		,	11	R		11	56 25			46	8 3	
			13	R		11	56 27			46	9 5	
		,	17	R		11	56 35			46	9 1	
			23	R		11	56 38			46	8 5	
			24	R		11	56 30			46	8 2	
			25	R		11	56 22			46	8 6	
			26	R		11	56 33			46	9 2	
			28	R		11	56 31			46	8 5	
		Mar	2	R		11	56 23			46	9 0	
			3	M		11	56 28			46	8 7	
			4	M		11	56 36			46	9 2	
			5	M		11	56 31			46	9 8	
			6	M		11	56 23			46	8 8	
		,,	19	M		11	56 39			46	9 0	
220		Feb	27	R	7	12	59 12	5	129	15	51 3	9 5
221		Mar	14	M	7	14	28 97		138	49	29 4	8 0
222		Jan	23	R	7	17	22 76	6	129	13	19 6	8 5
		Feb	12	R		17	22 78			13	19 4	8 8
223		Feb	23	R	7	18	1 93	4	129	42	29 6	9 6
		,	24	R		18	1 82	5		42	26 3	9 8
224	3013 Taylor	Feb	25	R	7	19	11 32	5	129	16	19 5	6 8
		,	27	R		19	11 35			16	18 2	7 3
225	2807 Lacaılle	Jan	21	R	7	19	30 96		142	15	14 1	8 0
		Feb	18	R		19	31 17			15	15 0	
226		Mar	17	M	7	19	33 48		123	7	52 1	9 0
227		Mar	16	M	7	21	32 00		131	50	19 2	7 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
228	S Canis Minoris Var 2	Feb	14	R	7	25	17 00	3	81	23	34 9	10 0
			23	R		25	16 84	4		23	33 9	9 5
			25	R		25	16 99	5		23	34 4	9 8
229	68 Geminorum	Jan	23	R	7	25	47 25		73	52	54 5	6 5
		Feb	28	R		25	47 21			52	54 9	
230	66 Geminorum α	Feb	2	P	7	25	51 35		57	48	53 6	
			5	P		25	51 44			48	52 6	
			13	R		25	51 25	6		48	54 6	
			17	R		25	51 23			48	53 3	
			24	R		25	51 28			48	52 9	
			26	R		25	51 15			48	53 9	
			27	R		25	51 16			48	53 1	
		Mar	2	P		25	51 37			48	53 8	
			6	M		25	51 24			48	55 0	
			9	M		25	51 23			48	53 8	
		,	18	M		25	51 19			48	55 3	
		,	19	M		25	51 15			48	54 1	
3 52 231		Jan	19	R	7	26	~~2 73~~	5	142	5	45 3	9 0
232		Mar	17	M	7	26	46 17		123	7	15 0	9 2
233	3126 Taylor	Jan	21	R	7	29	32 74		143	15	35 0	7 5
234	10 Canis Minoris α	Jan	7	M	7	32	7 64		84	25	35 9	
		Feb	4	R		32	7 80			25	38 4	
			12	R		32	7 75			25	38 0	
			24	R		32	7 73			25	37 0	
			26	R		32	7 80			25	37 4	
			27	R		32	7 73			25	36 3	
		Mar	3	M		32	7 72			25	37 3	
			4	M		32	7 65			25	36 8	
			5	M		32	7 67			25	37 7	
			6	M		32	7 68			25	36 6	
			9	M		32	7 65			25	37 0	
			11	M		32	7 71			25	37 1	
			12	M		32	7 66			25	38 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
234	10 Canis Minoris α	~~Jan~~	18	M	7	32	7 72		84	25	37 4	
			19	M		32	7 85			25	37 8	
235	2893 Lalande	Jan	15	M	7	32	41 06		121	49	18 1	8 0
236	2910 Lacaille	Jan	19	R	7	33	16 04	3	143	52	47 6	8 5
237		Jan	20	R	7	35	27 60	5	144	19	34 5	8 5
238	78 Geminorum β	Feb	4	R	7	36	55 69		61	38	46 8	
			5	P		36	55 94			38	46 1	
			11	R		36	55 75			38	46 9	
			25	R		36	55 72			38	46 8	
		,	26	R		36	55 67	5		38	48 3	
			27	R		36	55 74			38	46 7	
		Mar	2	P		36	55 63			38	47 7	
			11	M		36	55 75			38	47 5	
			12	M		36	55 59			38	47 9	
		,	13	M		36	55 79			38	47 6	
239		Jan	23	R	7	37	44 52		128	52	45 1	8 0
			24	R		37	44 49	5		52	45 4	7 0
240	81 Geminorum g	Feb	2	S	7	38	11 35		71	9	32 3	
			28	R		38	11 35			9	33 6	
241	2971 Lacaille	Jan	19	R	7	40	16 99	4	143	54	47 6	7 5
242	T Geminorum Var 4	Jan	16	R	7	41	4 50		65	55	40 1	8 7
		Feb	23	R		41	4 50			55	41 3	7 8
243		Jan	20	R	7	41	30 83	5	144	18	31 9	8 0
244	3013 Lacaille	Jan	21	R	7	43	27 42	3	142	0	32 0	7 0
245	49 R P L	Feb	4	R	7	43	39 66	3	5	33	32 7	
246		Jan	22	R	7	45	4 70	5	129	24	42 9	8 0
		Feb	10	R		45	4 43	5		24	41 9	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
247	1791 Brisbane	Jan	20	R	7	46	17 14		144	21	30 2	8 0
[2996] 248	3293 Taylor	Jan	19	R	7	46	29 16	5	144	43	55 7	8 0
249		Feb	26	R	7	48	56 74		130	25	52 8	9 1
250	1 Cancri	Feb	2	S	7	49	12 66		73	50	48 4	
251		Jan	23	R	7	49	49 23	5	129	17	12 4	8 5
			24	R		49	49 14	5		17	13 4	8 5
252		Feb	18	R	7	50	2 96	3	129	38	16 1	
253	3339 Taylor	Jan	20	R	7	51	48 81		144	16	45 2	8 0
254		Jan	19	R	7	52	52 87		144	41	30 7	9 0
255	6 Cancri	Feb	5	P	7	55	6 11		61	49	29 0	6 0
		,,	14	R		55	5 90	5		49	29 4	
		,	23	R		55	5 98			49	29 8	
		,,	24	R		55	6 00			49	29 3	
		,,	28	R		55	5 91			49	30 2	
		Mar	2	P		55	6 17			49	30 8	
		,	11	M		55	5 93			49	30 5	
			14	M		55	5 96			49	30 1	
		,	17	M		55	5 95	5		49	31 0	
256	3373 Taylor	Jan	21	R	7	55	12 34		144	11	41 1	8 0
257		Jan	22	R	7	55	17 99		128	30	2 8	8 0
		Feb	10	R		55	17 96	6		30	0 6	
258		Jan	23	R	7	56	29 34		129	21	9 1	9 5
259	15 Argus ρ	Feb	11	R	8	1	42 63		113	54	41 2	
			12	R		1	42 64			54	41 7	
		,	14	R		1	42 67			54	41 4	
		Mar	9	M		1	42 68			54	41 2	
			12	M		1	42 71			54	42 2	
			14	M		1	42 64			54	42 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			
					h	m	s		°	′	″	
260		Mar	13	M	8	1	59 94		113	46	37 3	0 7
261		Jan	30	R	8	2	9 61	6	128	39	18 0	0 0
		Feb	10	R		2	9 82	5		39	14 6	0 3
262	16 Cancri 3	Jan	6	M	8	4	20 91		71	56	29 8	
263		Feb	17	R	8	5	17 17	4	130	45	12 2	8 3
264	R Cancri Var 1	Jan	16	R	8	9	0 41		77	51	22 1	5 0
		Feb	5	P		9	0 85			51	20 1	7 0
			14	R		9	0 53	5		51	22 6	8 0
265		Mar	28	R	8	9	20 80	4	74	15	52 6	0 1
			30	R		9	21 00	4		15	51 0	1 2
266		Mar	17	M	8	9	51 95		74	16	2 7	1 3
267	16221 Lalande	Mar	18	M	8	10	30 18		73	54	0 8	7 0
268		Feb	13	R	8	12	15 14		128	43	30 2	8 3
269		Feb	10	R	8	12	43 23		128	40	43 7	8 8
270		Feb	18	R	8	12	53 61	5	131	17	~~17~~	0 3
271		Feb	17	R	8	12	55 26	5	130	45	10 7	[illegible]
272		Mar	16	M	8	13	10 21		133	17	7 4	1 5
273	20 Cancri d^1	Jan	6	M	8	15	30 83		71	13	50 0	
274		Jan	16	R	8	17	21 94		141	15	11 3	0 0
275	3620 Taylor	Feb	17	R	8	23	8 67		130	47	35 5	8 0
276		Feb	10	R	8	23	30 10	5	128	38	23 3	8 5
			13	R		23	30 06			38	21 2	9 0
277	31 Cancri θ	Mar	2	P	8	23	47 14		71	26	41 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
278	33 Cancri η	Feb	2	S	8	24	46 87		69	5	46 0	
			3	R		24	46 93			5	44 8	
			25	R		24	46 94			5	47 6	
		Mar	13	M		24	46 97			5	46 3	
			14	M		24	47 00			5	46 4	
			16	M		24	46 88			5	46 1	
			18	M		24	47 04			5	47 4	
			23	R		24	46 88			5	46 5	
279	3651 Taylor	Feb	18	R	8	25	37 17		130	3	8 0	7 7
280		Jan	30	R	8	26	23 33	4	130	30	18 1	9 0
281		Feb	10	R	8	30	11 64	3	128	46	55 0	8 5
			17	R		30	11 78			46	56 0	8 3
282	3710 Taylor	Mar	11	M	8	31	22 50		141	20	51 9	8 0
283		Mar	25	R	8	33	7 28		129	23	15 2	8 5
			26	R		33	7 25			23	14 8	8 8
284	S Cancri Var 2	Jan	16	R	8	36	6 46	4	70	28	32 4	10 0
		Feb	11	R		36	6 26	5		28	32 6	8 0
			18	R		36	6 45			28	32 5	7 9
		Mar	24	R		36	6 40			28	32 9	8 0
285	3767 Taylor	Mar	4	M	8	36	18 59		149	50	2 8	8 5
286	47 Cancri δ	Feb	3	R	8	36	53 61		71	20	42 0	
287		Mar	6	M	8	37	48 60	5	136	5	19 7	8 9
288	11 Hydræ ε	Feb	5	M	8	39	31 05		83	4	52 0	
			25	R		39	31 16			4	53 0	
		Mar	11	M		39	31 14			4	52 9	
			14	M		39	31 06			4	51 6	
			16	M		39	31 17			4	53 9	
			17	M		39	31 07			4	53 8	
			18	M		39	31 03			4	54 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	*m*	*s*					
288	11 Hydræ ε		Mar	19	M	8	39	31 01		83	4	51 9	
				20	R		39	31 11			4	50 7	
				23	R		39	31 03			4	52 0	
				25	R		39	31 08			4	51 6	
				27	R		39	31 08			4	50 9	
289			Mar	26	R	8	40	27 06		129	15	20 5	8 3
290	60 R P L		Feb	27	R	8	46	8 40	3	5	16	43 0	
			Mar	5	M		46	7 80	3		16	41 2	
			,,	9	M		46	9 33	3		16	42 1	
				18	M		46	9 20	3		16	41 6	
		s p	Sep	14	M		46	8 89	2		16	40 2	
		s p	Oct	6	M		46	8 70	2		16	44 0	
291	S Hydræ Var 3		Mar	23	R	8	46	25 06	4	86	24	59 4	10 2
				24	R		46	25 27	5		24	59 7	10 2
			,,	27	R		46	25 27	5		24	58 6	10 2
292			Mar	13	M	8	47	18 74		69	36	57 0	9 6
293	3886 Taylor		Mar	6	M	8	48	12 00		136	52	39 3	8 0
294	T Cancri Var 3		Feb	25	R	8	48	50 46	5	69	37	45 8	9 6
			Mar	11	M		48	50 44			37	44 3	9 7
				26	R		48	50 42			37	45 1	9 0
295	T Hydræ Var 4		Jan	16	R	8	48	59 93	4	98	37	15 5	9 7
296			Mar	16	M	8	49	11 22		132	54	6 3	7 5
297	66 Cancri α		Jan	7	M	8	50	59 69		77	36	51 1	
			Feb	2	S		50	59 53			36	51 7	
			Mar	30	R		50	59 60			36	52 3	
298			Mar	14	M	8	51	52 86		137	24	27 1	9 7
299			Feb	28	R	8	54	18 07	5	130	34	38 2	8 9
			Mar	20	R		54	18 22			34	38 0	8 7

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	*m*	*s*		°			
300		Apl	9	M	8	54	55 91		142	48	42 8	9 0
301	3941 Taylor	Apl	8	M	8	54	57 63		144	6	8 7	8 8
302		Apl	10	M	8	56	35 61	5	146	45	47 0	9 3
303		Mar	23	R	8	56	40 93	5	129	17	57 6	9 6
304		Jan	16	R	8	59	4 56		145	37	55 2	9 0
305	76 Cancri κ	Jan	7	M	9	0	19 59		78	46	56 8	
		Mar	2	P		0	19 71			46	58 5	
306		Apl	11	M	9	1	2 20		150	1	16 2	8 0
307		Feb	23	R	9	1	47 87	5	128	56	54 9	7 5
		Mar	31	R		1	47 79			56	55 2	7 9
308		Mar	24	R	9	2	12 49	3	71	26	18 8	10 5
309		Feb	24	R	9	4	21 33	5	130	29	24 9	
			28	R		4	21 60			29	24 8	9 3
310	3713 Lacaille	Apl	13	M	9	4	32 87		143	48	57 5	7 8
311		Jan	16	R	9	6	25 31	3	142	29	13 3	8 3
		Feb	11	R		6	25 01			29	12 9	8 4
312		Mar	4	M	9	6	28 79		138	41	16 6	8 9
313		Mar	3	M	9	8	12 53	5	148	14	1 3	9 0
314		Feb	25	R	9	9	21 59	2	73	52	23 0	10 2
		Mar	24	R		9	21 55	3		52	26 3	10 3
315	83 Cancri	Feb	2	S	9	11	19 96	6	71	42	58 5	
			3	R		11	19 94			42	57 2	
			5	M		11	19 76			42	56 6	
		Mar	2	P		11	20 08			42	59 4	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
315	83 Cancri	Mar	9	M	9	11	19 72		70	42	57 9	
			16	M		11	19 83			42	59 4	
			17	M		11	19 76	5		42	58 3	
			20	R		11	19 81			42	56 2	
			23	R		11	19 80			42	55 7	
			25	R		11	19 86			42	57 7	
			28	R		11	19 85			42	58 3	
			31	R		11	19 83	5		42	56 5	
		Apl	1	R		11	19 96			42	58 0	
316		Feb	23	R	9	11	46 21	5	130	44	53 2	
317		Jan	16	R	9	14	32 58		24	50	15 3	9 0
		Feb	27	R		14	32 64			50	14 1	8 7
			28	R		14	32 63	5		50	13 0	8 9
318		Apl	13	M	9	15	13 60		113	~~43~~	26 1	9 2
319		Feb	11	R	9	15	49 83	5	25	4	10 3	9 0
			26	R		15	50 04			4	11 8	9 3
320		Mar	5	M	9	16	3 99		140	7	19 9	9 0
321		Mar	4	M	9	16	15 59		139	0	47 4	9 5
322	9881 O A N	Mar	13	M	9	17	32 56		25	3	29 3	9 3
323	30 Hydrae α	Feb	6	M	9	20	51 16		98	3	59 0	
		Mar	16	M		20	51 13			4	1 0	
			17	M		20	51 39			4	0 3	
			20	R		20	51 26			4	0 8	
			24	R		20	51 21			3	59 9	
			25	R		20	51 24			4	0 2	
			26	R		20	51 24			4	0 8	
			28	R		20	51 20			4	0 5	
			30	R		20	51 29			4	0 2	
		Apl	1	R		20	51 31			3	59 8	
			14	M		20	51 29			4	0 7	
			15	M		20	51 38			4	59 8	
			28	M		20	51 17			3	58 8	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observed	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	*m*						
324	2 Leonis ω	Mar	2	P	9	21	7 29		80	10	56 3	
325	3853 Lacaille	Mar	18	M	9	22	29 81		131	59	2 0	8 0
326		Feb	26	R	9	21	30 40		130	25	51 2	9 0
			28	R		21	30 50	6		25	51 6	9 3
		Mar	27	R		21	30 35			25	53 3	9 0
327	6 Leonis *h*	Apl	27	M	9	24	36 90		79	40	51 5	6 0
328	3886 Lacaille	Mar	5	M	9	24	41 23	5	111	49	33 3	8 0
329	3887 Lacaille	Mar	4	M	9	24	53 13	3	110	0	16 9	8 0
330		Mar	6	M	9	26	53 60		144	57	51 3	9 0
331		Mar	23	R	9	28	52 41		128	46	39 2	8 8
332		Mar	24	R	9	28	58 85		128	49	16 2	8 0
333	10 Leonis	Feb	3	R	9	29	58 38		82	33	6 0	
			4	R		29	58 60			33	7 3	
334	4259 Taylor	Mar	7	M	9	31	55 33		138	41	31 9	5 0
335		Mar	25	R	9	32	25 09		129	53	36 6	8 7
336	69 R P L s p	Oct	23	R	9	32	32 [illegible]6	3	2	46	30 6	
337		Feb	26	R	9	[illegible]	51 36	3	129	47	11 2	8 2
338	14 Leonis o	Jan	7	M	9	33	50 38		79	29	9 7	
		Feb	3	R		33	50 19	5		29	10 7	
		Mar	30	R		33	50 34			29	10 5	
			31	R		33	50 09			29	10 4	
339		Feb	24	R	9	34	41 56		130	34	22 9	
340	4280 Taylor	Mar	5	M	9	34	42 40		142	19	28 7	8 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
311	17 Leonis ε	Feb	5	M	9	38	4 10		65	35	19 4	
			6	M		38	4 31			35	19 0	
		Mar	20	R		38	4 08			35	49 5	
			23	R		38	4 10	5		35	49 9	
			24	R		38	4 10			35	49 0	
			26	R		38	4 13			35	49 4	
			27	R		38	4 16			35	48 0	
			28	K		38	4 08			35	49 6	
		Apl	1	K		38	4 16			35	49 0	
			9	M		38	4 21			35	49 4	
			10	M		38	4 22			35	47 9	
			11	M		38	4 23			35	48 7	
312	R Leonis Var 1	Feb	26	R	9	40	11 25	5	77	56	16 5	9 0
		Mar	11	M		40	11 14	6		56	15 8	9 2
			17	M		40	10 85			56	16 5	8 9
			25	K		40	11 20			56	16 2	7 9
			30	R		40	11 25			56	16 3	8 2
313		Feb	21	R	9	42	39 64	5	130	17	31 0	8 0
314		Mar	2	M	9	43	32 16		113	45	37 4	8 9
315		Mar	12	M	9	44	3 77		117	1	19 8	8 0
316		Mar	27	R	9	45	53 11		129	2	34 2	9 3
317	70 H P I	Feb	2	S	9	46	6 81	3	5	25	33 2	
		Mar	3	M		46	6 85	3		25	33 2	
		Apl	8	M		46	7 23	5		25	31 1	
			10	M		46	7 71	3		25	30 8	
			13	M		46	7 56	3		25	30 6	
		,,	15	M		46	8 14	3		25	32 9	
318	4402 Taylor	Feb	26	K	9	49	50 91	5	120	17	12 3	7 0
		Mar	23	R		49	50 87			17	12 6	7 7
319	29 Leonis π	Jan	7	M	9	52	58 26		81	18	1 0	
		Mar	3	M		52	58 33	4		18	0 8	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
349	29 Leonis π	Mar	4	M	9	52	58 33		81	18	0 3	
			24	R		52	58 33			18	0 0	
			27	R		52	58 29			17	59 9	
			30	R		52	58 34			18	0 1	
		Apl	1	L		52	58 35	6		18	0 5	
			9	M		52	58 23			17	59 8	
			11	M		52	58 23			18	0 1	
			13	M		52	58 27			18	0 5	
			14	M		52	58 30			18	1 1	
			27	M		52	58 31			17	59 4	
			28	M		52	58 20			17	59 7	
350		Mar	12	M	9	55	49 87		147	23	57 7	8 0
351		Mar	14	M	9	56	24 14		111	3	33 7	8 0
352	4476 Taylor	Mar	5	M	9	57	~~48 75~~ 49 24		145	35	45 6	8 9
353	31 Leonis A	Mar	3	M	10	0	37 80		79	19	58 3	
			4	M		0	37 84			19	57 9	
354	32 Leonis α	Feb	2	S	10	1	4 38		77	21	51 1	
			6	M		1	4 24			21	52 4	
		Mar	7	M		1	1 30			21	52 0	
			13	M		1	4 20			21	53 5	
			24	R		1	4 39			21	53 0	
			25	R		1	1 30			21	53	
			26	R		1	4 38			21	54 2	
			27	R		1	4 30			21	55 2	
			28	R		1	4 38	5		21	51 0	
			31	R		1	4 36			21	54 8	
		Apl	8	M		1	4 35			21	51 7	
			9	M		1	4 32			21	53 1	
			10	M		1	4 41			21	51 5	
			11	M		1	4 32			21	52 7	
			13	M		1	4 44			21	53 2	
			14	M		1	4 38			21	53 6	
			15	M		1	4 34			21	51 1	
			27	M		1	4 22			21	51 7	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s					
354	32 Leonis α		Apl	28	M	10	1	4 24		77	21	54 1	
				29	M		1	4 36			21	51 3	
355	4538 Taylor		Mar	26	R	10	6	[illegible] 78		129	19	7 2	
10 356			Mar	17	M	~~13~~	8	59 19		139	51	23 4	[illegible] 0
357	72 R P L		Mar	12	M	10	9	10 65	3	[illegible]	3	21 8	
			Apl	30	M		9	10 87	3		3	19 8	
		p	Aug	18	R		9	10 97	3		3	19 5	
		sp	Nov	2	M		9	10 67	3		3	19 6	
358	4577 Taylor		Mar	27	R	10	9	15 10		128	36	35 7	9 0
			,,	31	R		9	15 08			36	39 3	
359	41 Leonis γ^1		Feb	2	S	10	12	21 91		[illegible]9	28	3 1	
			Mar	2	M		12	21 71			28	3 7	
				7	M		12	21 80			28	0	
				26	R		12	21 92			28	1 [illegible]	
				30	R		12	21 81			28	1 3	
			Apl	1	R		12	21 86			28	[illegible] 2	
				8	M		12	21 85			28	0 2	
				9	M		12	21 93			28	1 1	
				10	M		12	21 82			28	1 1	
				11	M		12	21 91			28	1 1	
				13	M		12	21 79			28	1 5	
				14	M		12	21 81			28	2	
				15	M		12	21 87			28	0 3	
				29	M		12	24 87			27	59 [illegible]	
360			Mar	5	M	10	14	36 11		150	25	19 3	[illegible] 0
361	43 Leonis		Feb	1	R	10	15	50 11		82	15	16 1	
				5	M		15	49 91			15	17 0	
362			Mar	27	R	10	16	9 10	6	129	15	55 9	9 0
363	44 Leonis		Apl	1	R	10	18	1 87	6	80	51	13 [illegible]	
364			Mar	12	M	10	18	43 26		116	8	10 2	[illegible] 7

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	m	s						
365		Mar	3	M	10	21	50 24		146	51	31 8	8 9	
366	47 Leonis ρ	Feb	4	R	10	25	35 64		79	59	22 7		
			5	M		25	35 49			59	23 0		
		Mar	2	M		25	35 77			59	2 3		
			30	R		25	35 71			59	23 3		
			31	R		25	35 60			59	22 7		
		Apl	1	1		25	35 81			59	24 [illegible]		
			8	M		25	35 68			59	23 1		
			10	M		25	35 67			59	0 5		
			13	M		25	35 75			59	25 1		
			15	M		25	35 67			59	22 5		
			18	R		25	35 60			59	22 3		
		May	1	M		25	35 61			59	0 7		
367		Mar	12	M	10	29	10 39		117	~~53~~	~~17 0~~	9 5	— 54 18 1
368	4769 Taylor	Mar	3	M	10	30	20 20	3	146	50	58 0	6 0	
369	R Ursæ Majoris Var 1	Mar	13	M	10	34	53 94		20	30	25 3	6 7	
			17	M		34	54 27	5		30	27 0	6 7	
			18	M		34	53 71	3		30	26 9	6 9	
			19	M		34	54 32			30	25 4	6 8	
		Apl	17	R		34	53 83	3		30	2[illegible] 0	8 0	
370		Feb	2	S	10	35	19 32	5	137	19	15 0	9 5	
371		Mar	9	M	10	38	44 67		144	50	1 4	8 0	
372		Mar	12	M	10	41	22 73		146	22	52 8	9 0	
373	53 Leonis *l*	Mar	2	M	10	42	3 14		78	13	52 2		
			31	R		42	3 24			13	51 0		
		Apl	8	M		42	3 29			43	51 3		
			16	R		42	3 23			43	50 8		
			17	R		42	3 22	5		43	51 4		
			18	R		42	3 17			43	50 1		
			28	M		42	3 17			43	53 0		
			29	M		42	3 27	3		43	50 7		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
373	53 Leonis *l*	May	1	M	10	42	3.09		78	43	49.4	
			6	M		42	3.24			43	50.7	
			7	M		42	3.20			43	51.2	
374		Mar	6	M	10	42	34.28		141	4	7.1	9.0
375		Mar	11	M	10	43	50.46		137	2	29.7	8.9
376		Apl	15	M	10	46	0.31		111	39	32.0	7.8
377		Mar	5	M	10	47	50.58		150	5	1.9	10
378		Mar	18	M	10	47	56.36		129	28	53.1	10
379	1915 Taylor	Mar	9	M	10	48	3.30		114	53	[illegible]	7.0
380		Mar	11	M	10	50	13.69		141	30	10.9	8.0
381	1955 Taylor	Mar	12	M	10	50	38.19	5	117	19	17.2	7.0
382	4069 Taylor	Feb	6	M	10	52	16.75	5	113	35	55.0	9.0
383		Mar	11	M	10	52	50.29		139	32	28.7	8.9
384	59 Leonis *c*	Mar	4	M	10	53	38.48		83	9	47.6	
			5	M		53	~~38.64~~			9	49.[illegible]	
385	61 Leonis p^1	Apl	28	M	10	54	50.68		91	41	52.7	
			29	M		54	50.38			41	51.7	5.5
386		Mar	9	M	10	56	59.40		145	35	22.1	9.0
387	4576 Lacaille	Mar	23	R	10	57	46.14	5	129	34	13.0	8.2
388	63 Leonis χ	Mar	7	M	10	57	56.96		81	55	26.6	
		Apl	1	P		57	57.06	6		55	26.2	
			17	R		57	56.84			55	26.8	
			18	R		57	56.94	4		55	26.8	
			23	R		57	56.86			55	27.0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
388	63 Leonis χ	May	2	M	10	57	56 85		81	55	26 7	
			9	M		57	56 84			55	24 6	
			12	M		57	56 88			55	27 1	
389		Mar	6	M	10	58	9 40	5	140	58	54 6	9 5
390	65 Leonis p^3	Mar	4	M	10	59	55 01		87	18	6 0	
391		Mar	12	M	11	0	34 00		147	13	24 8	9 5
392	5092 Taylor	Apl	11	M	11	5	16 22		143	48	46 3	8 7
393	68 Leonis δ	Mar	2	M	11	6	49 06		68	13	38 5	
		Apl	16	R		6	49 02			13	3 5	
			23	R		6	48 99			13	35 6	
			27	M		6	49 12			13	35 2	
			30	M		6	49 11			13	34 7	
		May	1	M		6	48 96			13	33 9	
			2	M		6	48 98			13	34 4	
			6	M		6	49 02			13	33 8	
			7	M		6	49 07			13	35 0	
			12	M		6	49 05			13	34 3	
			15	M		6	49 07			13	31 8	
394		Apl	9	M	11	7	4 51	3	145	39	5 0	8 8
395		Mar	11	M	11	8	31 38		150	50	30 5	7 9
			23	R		8	31 28	5		50	32 6	8 8
396		Mar	9	M	11	9	26 23		145	54	54 6	10 0
397		Mar	12	M	11	9	36 60		147	10	51 2	9 0
398	74 Leonis ϕ	Feb	5	M	11	9	41 54		92	54	13 0	
			6	M		9	41 89			54	11 6	
		Apl	1	P		9	41 93			54	13 1	
			28	M		9	41 66			54	~~11 0~~	
399		Mar	6	M	11	10	29 26		141	8	15 3	10 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No. of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
400		Mar	20	R	11	11	5.12	5	127	38	2.2	
401	12 Crateris δ	Apl	17	R	11	12	29.61		104	2	15.7	
			18	R		12	29.66			2	11.8	
			23	R		12	29.59	5		2	15.3	
			27	M		12	29.61			2	15.1	
			30	M		12	29.52			2	11.9	
		May	1	M		12	29.59			2	11.3	
			2	M		12	29.11			2	11.8	
			4	M		12	29.55			2	11.8	
			6	M		12	29.63			2	11.3	
			7	M		12	29.71			2	15.0	
			8	M		12	29.57			2	16.0	
			9	M		12	29.63			2	14.9	
			15	M		12	29.50			2	11.8	
402		Mar	26	R	11	12	45.72		120	31	18.6	7.8
403		Mar	23	R	11	19	22.05		129	30	37.6	8.1
			26	R		19	22.17			30	37.3	8.2
404		Apl	16	R	11	21	39.16	5	128	22	27.3	9.5
405		Mar	9	M	11	22	15.50		115	53	23.6	9.0
406		Apl	13	M	11	23	8.90		112	52	15.8	9.2
407	87 Leonis e	Feb	5	M	11	23	18.73		92	11	53.9	
		Mar	5	M		23	18.87			11	54.2	
			6	M		23	18.51			11	53.7	
408		Mar	13	M	11	23	18.88		23	20	1.6	10.0
			18	M		23	18.86	5		20	53.0	10.0
		Apl	17	R		23	18.79	6		20	51.5	9.4
409		Mar	23	R	11	26	36.12	5	23	17	15.0	9.9
			25	R		26	36.13			17	18.0	10.0
410		Mar	2	M	11	29	18.26		149	15	22.2	8.9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
411	91 Leonis υ	Mar	5	M	11	29	56 07		90	4	4 9	
			6	M		29	56 22			4	4 6	
		Apl	1	P		29	56 23			4	4 8	
			16	R		29	56 08			4	4 5	
			29	M		29	56 04			4	2 9	
			30	M		29	56 01			4	3 9	
		May	4	M		29	56 01			4	2 7	
			6	M		29	56 03			4	3 3	
			7	M		29	55 94			4	1 6	
			8	M		29	56 03			4	5 5	
			9	M		29	56 11			4	2 8	
			11	M		29	56 07			4	1 0	
			12	M		29	56 06			4	5 1	
412		Mar	14	M	11	3[illegible]	6 37	5	144	11	11 0	8 0
413		Mar	30	R	11	33	51 38	5	127	48	55 5	8 1
414		Apl	11	M	11	34	17 41		144	20	21 7	7 9
415		Mar	13	M	11	36	0 31		139	39	[illegible]6 1	7 [illegible]
416	5384 Taylor	Feb	5	M	11	36	59 90	5	151	43	17 3	6 0
417		Apl	9	M	11	38	6 44	5	149	38	28 8	[illegible] 3
418		Mar	26	[illegible]	11	38	39 13	5	129	33	11 2	9 [illegible]
		Apl	17	R		38	39 00			33	12 9	[illegible] 1
419		Mar	28	R	11	41	5 95	5	126	30	4 9	9 2
420		Mar	24	R	11	41	9 27		129	31	45 2	8 3
			25	R		41	9 29			31	44 1	8 3
421	94 Leonis β	Apl	23	R	11	42	4 21	[illegible]	71	39	45 1	
		May	4	M		42	4 12			[illegible]9	46 6	
			8	M		42	4 19	5		39	4[illegible]	
			11	M		42	4 09			39	45 1	
			12	M		42	4 21			39	45 0	
			15	M		42	4 19			39	43 6	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No. of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
422		Apl	10	M	11	43	5 22		143	44	54 7	9 3
423	5127 Taylor	Feb	6	M	11	44	2 10		94	34	18 4	6 0
		Apl	29	M		44	2 07			34	17 5	6 0
			30	M		44	1 91			34	18 5	6 0
424		Mar	30	R	11	44	41 15		129	2	19 6	8 2
425	5133 Taylor	Mar	23	R	11	44	48 42		129	32	11 1	7 7
			27	R		44	48 39			32	40 5	7 8
426		Apl	13	M	11	45	45 58		112	30	41 1	9 4
427		Mar	28	R	11	49	53 93	5	128	5	5 2	
428		Mar	30	R	11	51	20 73	5	128	32	13 9	8 7
429		Apl	11	M	11	51	33 60		141	12	35 3	9 0
430		Mar	23	R	11	53	17 10	5	12?	35	29 0	9 7
			27	R		53	17 13	5		35	29 0	9 7
431		May	16	R	11	56	20 43	5	128	29	37 2	9 0
432	5531 Taylor	Apl	10	M	11	56	16 17		143	56	59 0	8 0
433	4995 Lacaille	Apl	15	M	11	56	51 02		112	14	6 0	7 3
434	89 R I 1	Mar	20	R	11	57	48 27	2	?	39	15 0	
			21	R		57	48 23	3		39	15 3	
			26	R		57	48 05			39	11 7	
			28	R		57	48 16	3		39	15 0	
			31	R		57	47 95	3		39	15 0	
		Apl	23	R		57	48 30	3		39	~~13 0~~	
		May	2	M		57	48 21	3		39	~~12 0~~	
		l Oct	1	I		57	48 36	3		39	11 3	
		s p Nov	1	M		57	48 16	5		39	12 0	
		s p	11	M		57	47 56	3		39	10 0	
435		Mar	30	R	11	58	58 32		128	27	25 6	8 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No. of Wires	Mean Polar Distance 1863			Magnitude
					h	m						
436		Apl	14	M	11	59	11 35		111	15	51 2	8 0
437		Mar	27	R	12	1	33 96	5	130	1	11 1	9 0
438	5041 Lacaille	Apl	9	M	12	2	29 66		141	22	52 4	8 2
439		Feb	6	M	12	2	34 21	3	141	5	17 7	9 5
440	2 Corvi ε	Apl	16	R	12	3	5 01		111	51	26 7	
		May	8	M		3	4 95			51	28 5	
			9	M		3	4 95			51	28 1	
			11	M		3	4 92			51	29 1	
			16	R		3	4 96	5		51	27 6	
441		Apl	11	M	12	3	35 27		145	56	41 2	9 0
442		Apl	28	M	12	5	14 87	5	134	7	45 7	8 0
443		Mar	25	R	12	5	59 86	5	130	10	45 5	9 5
444		Apl	13	M	12	6	9 37		138	27	11 7	8 0
445		Apl	15	M	12	6	26 01	5	112	50	19 1	9 1
52 33 446	5613 Taylor	Mar	31	R	12	7	52 ~~61~~ 35		130	22	28 7	7 2
447	69 Ursæ Majoris δ	Mar	27	R	12	8	37 87		32	12	23 3	
			30	R		8	37 84			12	21 5	
		Apl	10	M		8	38 04			12	21 6	
448		Apl	14	M	12	8	46 95		144	19	53 0	8 0
449	15 Virginis η	Apl	30	M	12	12	53 87		89	54	19 1	
		May	15	M		12	53 78			54	19 3	
			16	R		12	53 85			54	19 0	
			18	R		12	53 79			54	19 6	
450		Apl	9	M	12	11	0 35		143	14	28 3	9 6
451	5119 Lacaille	Mar	6	M	12	15	18 51	5	138	33	54 9	9 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	m	s						
452		Apl	8	M	12	15	15 71		141	39	37 5	8	
453		Apl	11	M	12	16	42 61		117	9	26 1	8 9	
454		Apl	15	M	12	18	55 77		113	29	47 8	10 0	
455		Mar	27	R	12	18	57 33	5	129	43	26 9	9 3	
456		Mar	17	M	12	18	59 97	5	117	20	59 3	7 8	
457		Apl	13	M	12	19	~~13 30~~		141	3	50 2	7 9	14 06
458		Apl	28	M	12	19	49 79		124	12	47 8	8 5	
459		Apl	14	M	12	20	42 62		111	18	58 0	7 8	
460	5795 Taylor	Mar	7	M	12	21	6 95		145	38	27 1	7 0	
461	21 Virginis q	Apl	10	M	12	26	12 17		98	41	45 0	5 5	
			11	M		26	42 19			41	45 4	5 5	
462	9 Corvi β	Apl	1	M	12	27	11 59		112	38	20 3		
		May	11	M		27	11 73			38	20 1		
			18	T		27	11 65			38	19 0		
		June	1	M		27	11 68			38	18 7		
			9	M		27	11 79			38	20 0		
463		Apl	11	M	12	27	16 22		140	55	11 2	9 0	
464		Apl	13	M	12	30	17 53		112	19	22 1	9 0	
465	R Virginis Var 2	Apl	23	T	12	31	32 89		82	15	27 7	8 8	
		May	1	M		31	32 81			15	27 2	9 2	
			7	M		31	32 78			15	27 2	9 2	
466		May	21	R	12	31	48 89	5	81	30	11 7	9 3	
467	26 Virginis χ	Mar	6	M	12	32	10 66		97	14	28 5		
			7	M		32	10 63			14	27 3		

Separate Results of Madras Meridian Circle Observations in 1863

	Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	m	s						
	467	26 Virginis χ	Apl 30	M	12	32	10 73		97	14	27 7	5 0	
			May 1	M		32	10 2			14	26 2	5 0	
			„ 28	P		32	10 65	5		14	28 3		
	468		Apl 15	M	12	32	46 05		143	7	2 1	9 0	
	469		Apl 9	M	12	33	43 61		145	33	10 0	8 9	
	470	5850 Taylor	Apl 8	M	12	34	23 55		114	0	34 8	7 8	
	471	29 Virginis γ^1	May 26	R	12	34	43 09		90	41	49 0		
3	472	S Ursæ Majoris Var 2	May 20	R	12	37	~~54 71~~	3	28	9	19 6	8 5	
	473	5863 Taylor	Apl 11	M	12	38	18 48		143	51	43 8	7 5	
	474		Apl 13	M	12	41	36 48		141	49	14 8	8 8	
	475		Apl 9	M	12	42	20 72		147	18	24 6	9 0	
	476		Apl 15	M	12	42	44 02		142	51	35 8	8 9	
	477		Apl 14	M	12	42	47 52		139	24	55 7	9 0	
	478		Apl 16	R	12	43	13 93	5	129	7	30 6	8 9	
	479	40 Virginis ψ	Mar 6	M	12	47	14 00		98	47	39 0		
			Apl 30	M		47	13 84			47	38 5	5 0	
	480	99 R P L	May 26	R	12	48	10 25	2	5	50	34 5		
		s p	Oct 17	R		48	9 91	2		50	~~33 6~~		31 7
	481		Apl 8	M	12	49	20 13		145	33	53 6	8 0	
	482	12 Can Ven α	May 16	R	12	49	36 74		50	56	29 0		
			19	R		49	36 77			56	28 9		
			20	R		49	36 77			56	28 2		
			21	R		49	36 75	5		56	29 8		
			27	R		49	36 79			56	28 8		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
483	5974 Taylor	Apl	9	M	12	51	50 95		113	38	16 2	8 9
484		Apl	10	M	12	53	4 14	5	149	23	43 8	8 9
			13	M		53	4 40			23	44 1	7 9
485		Apl	27	M	12	53	22 37		135	41	7 9	8 0
486		Apl	14	M	12	54	31 52		139	18	3 3	9 2
487		Apl	29	M	12	56	56 17		123	24	51 4	8 3
488	5381 Lacaille	Apl	23	R	12	57	4 42		129	56	47 9	7 8
489	51 Virginis θ	Apl	1	M	13	2	51 29		94	48	26 1	
		May	20	R		2	51 60			18	24 3	
			26	R		2	51 56			18	24 4	
			27	R		2	51 19			48	25 2	
			30	R		2	51 15			16	24 8	
490	6057 Taylor	Mar	7	M	13	3	~~43~~ 62		149	11	25 0	6 0
491		Apl	15	M	13	4	28 48	5	138	10	13 4	9 2
492		Apl	11	M	13	4	32 00		143	12	0 9	9 5
493		Apl	29	M	13	5	33 90		124	16	11 8	8 9
494	W Virginis Var 1	May	21	R	13	6	51 06		105	49	35 5	8 8
			22	R		6	51 03			49	34 7	
495		Apl	14	M	13	7	35 75		139	45	53 0	9 0
496		Apl	23	R	13	9	42 08	6	129	55	57 0	8 7
497	58 Virginis	May	28	R	13	10	16 63		99	49	23 5	
			29	R		10	16 62			49	23 6	
498	6129 Taylor	May	16	R	13	12	9 65		130	28	12 3	7 4
499		May	1	M	13	12	40 63		122	56	14 5	7 9

45 92

Separate Results of Madras Meridian Circle Observations in 1863

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s					
	500	5503 Lacaille	May	20	R	13	14	5 50	5	125	23	32 1	8 0
	501		Apl	11	M	13	1	43 91		115	12	31 9	9 0
	502	67 Virginis α	Mar	7	M	13	17	59 68		100	26	12 9	
			May	1	M		17	58 61			26	11 2	
				2	M		17	58 56			26	42 1	
				5	M		17	58 62			26	13 2	
				16	R		17	58 70			26	43 2	
				25	I		17	58 76			26	1[illegible] 5	
			June	1	M		17	58 69			26	1[illegible] 5	
				3	M		17	58 80			26	12 2	
				5	M		17	58 64			26	4[illegible] 6	
	503	12872 O A S	May	6	M	13	19	17 43		116	56	5 0	10 2
	504	5516 Lacaille	Apl	11	M	13	19	37 16		143	27	9 0	9 0
17 35	505	103 R P L *s p*	Dec	7	M	13	20	~~18 58~~ 17.35	5	4	31	41 6	
	506	P Hydræ Var 1	Apl	15	M	13	22	1[illegible] 06		112	[illegible]	20 1	[illegible] 7
				16	R		22	13 87			[illegible]	[illegible]	
				29	M		22	1[illegible] [illegible]			31	[illegible]	[illegible]
			May	7	M		22	13 82			31	[illegible]	7 0
	507	76 Virginis *h*	Mar	7	M	13	25	45 32		100	27	30 8	
			May	1	M		[illegible]	[illegible] 2			27	2[illegible] 7	[illegible]
				2	M		[illegible]	1[illegible] 9			27	29 6	
	508	S Virginis Var 6	Apl	13	M	13	[illegible]	[illegible]		[illegible]	29	[illegible]	7 5
				14	M		[illegible]	[illegible]			[illegible]	[illegible]	7 [illegible]
				23	I		[illegible]	[illegible] 90			[illegible]	[illegible]	7 1
			May	5	M		[illegible]	50 81			[illegible]	21 7	7 [illegible]
	509	79 Virginis ζ	Apl	1	M	13	27	42 1		89	5[illegible]	10 1	
			May	1[illegible]	I		27	12 81			5[illegible]	40 7	
				1[illegible]	I		27	42 [illegible]			[illegible]	4[illegible] 1	
				20	R		27	1[illegible] [illegible]			[illegible]	3[illegible] 2	
				21	I		[illegible]	1[illegible] [illegible]			53	39 5	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
509	79 Virginis ζ	May	22	R	13	27	42 92		89	53	39 5	
			26	R		27	42 89			53	40 7	
			27	R		27	42 86			53	39 6	
		June	1	M		27	12 76			53	38 7	
			2	M		27	42 77			53	38 9	
				M		27	42 99			53	10 0	
			10	M		27	12 76			3	10 7	
510		Apl	17	R	13	32	51 55	5	120	1	18 1	7 8
511	6303 Taylor	Apl	15	M	13	36	31 58	5	117	33	9 7	8 0
512		May	28	R	13	37	27 78		128	39	58 8	9 0
513		May	7	M	13	38	10 39	5	122	16	11 1	8 8
514		May	21	R	13	10	26 82	5	129	23	13 2	9 3
515	25103 Lalande	Apl	23	R	13	12	15 15		61	57	27 9	9 5
			29	M		12	15 27			7	25 8	9 0
		May	1	M		12	15 06			57	25 7	9 3
516	89 Virginis	May	29	R	13	12	25 83	5	107	27	1 1	
			30	R		12	25 89			27	0 2	
517		May	8	M	13	13	10 81		123	5	11 3	8 3
518		May	20	R	13	41	11 61		127	56	26 1	9 0
519		May	28	R	13	15	19 85		128	22	17 0	9 7
520		Apl	30	M	13	15	39 03		122	51	12 5	8 5
		May	1	M		45	38 83			54	15 7	8 0
521	8 Bootis η	May	5	M	13	18	9 60	5	70	54	1 6	
			19	R		18	9 60			54	52 8	
			21	R		48	9 62			54	51 7	
			22	R		18	9 63			54	51 7	
		June	1	M		18	9 58			54	51 3	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	*m*	*s*					
521	8 Bootis η		June	2	M	13	48	9 68		70	51	2 1	
				3	M		48	9 61			54	52 0	
				5	M		48	9 65	5		54	52 6	
				11	M		48	9 65	5		54	50 (	
522			May	7	M	13	50	37 09		123	43	37 5	8 0
523	25759 Lalande		Apl	29	M	13	54	39 29		67	21	29 4	7 5
			May	1	M		54	39 29			21	28 3	7 5
				6	M		54	39 28			21	29 6	7 5
				20	I		54	39 03	5		21	29 9	8 0
				27	P		54	39 30			21	30 9	
524	93 Virginis τ		May	28	R	13	54	40 54		87	47	7 8	
				29	R		54	40 54			47	27 8	
			June	2	M		54	40 52	3		47	26 8	
				3	M		54	40 49			47	26 8	
				5	M		54	40 45			47	26 7	
525	25896 Lalande		Apl	29	M	13	59	51 57	3	67	10	36 2	7 5
			May	2	M		59	51 42			10	37 4	7 5
				4	M		59	51 46			10	35 0	7 5
				6	M		59	51 46			10	34 5	7 5
526	6585 Taylor		May	8	M	14	1	18 94		124	13	46 7	7 8
527			May	30	R	14	2	22 39		129	3	58 4	
528	108 R 1 L		May	19	R	14	4	4 35	3	3	35	11 3	
		s p	Nov	9	M		4	4 13	3		35	11 2	
529	U Bootis Var 4		May	27	R	14	4	18 65		79	32	11 1	9 7
530	6616 Taylor		Apl	30	M	14	5	~~26 28~~ 26 27		146	46	~~31 8~~ 31 9	
531			May	7	M	14	6	5 20	5	135	1	0 6	8 0
532	16 Bootis α		May	26	R	14	9	24 60		70	6	11 2	
			June	9	M		9	24 72			6	12 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
532	16 Bootis α	June	10	M	14	9	24 79		70	6	12 0	
			11	M		9	24 74			6	10 6	
			18	R		9	24 84			6	11 5	
533	100 Virginis λ	Apl	28	M	14	11	41 69		102	44	18 6	
		May	2	M		11	41 83			44	19 1	
		June	27	R		11	42 01			44	19 4	
534		May	8	M	14	12	26 89	5	136	49	32 4	9 3
535		Apl	30	M	14	14	30 90	3	122	35	29 6	8 9
536		May	9	M	14	15	15 99		122	11	18 7	
537	6709 Taylor	May	7	M	14	15	55 15	6	119	3	2 1	7 0
538		May	1	M	14	17	21 04		123	13	[illegible] 2	9 9
539	6740 Taylor	Apl	29	M	14	19	1 39		133	42	38 0	7 6
540		Apl	30	M	14	21	53 94		122	33	43 7	8 7
541	5962 Lacaille	May	18	R	14	22	38 49	5	129	46	28 6	8 0
542		May	8	M	14	23	38 57	5	136	54	8 5	8 0
543		May	4	M	14	24	9 13		123	48	17 8	8 0
544	25 Bootis ρ	May	20	R	14	25	55 17		59	1	32 7	
			22	R		25	55 58			1	33 1	
		June	2	M		25	55 10			1	33 1	
			3	M		25	55 1			1	32 7	
			9	M		[illegible]	5[illegible]			1	35 1	
			18	R		25	55 48	6		1	33 7	
545		May	1	M	14	26	[illegible] 04		123	19	15 2	9 5
546		May	15	M	14	29	23 02		124	55	13 1	7 8
547	6027 Lacaille	Apl	30	M	14	31	0 63	5	122	47	2 2	7 7

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
548	R Bootis Var 1	May	16	R	14	31	9 03		62	40	3 0	7 4
			18	R		31	9 00			40	3 3	
			27	R		31	9 02			40	3 0	9 0
549		May	7	M	14	32	38 73		121	44	2 6	7 6
550	6848 Taylor	May	8	M	14	32	44 22		136	41	2 4	7 7
551	5 Libræ	May	11	M	14	38	24 82		101	52	48 4	
552	36 Bootis ε	May	22	R	14	39	0 12		62	20	45 0	
			25	R		39	0 08			20	47 7	
		June	9	M		39	0 16	5		20	48 9	
			10	M		39	0 23			20	48 0	
			18	R		39	0 05			20	48 1	
553		May	15	M	14	39	16 66		124	9	20 8	7 7
554	27022 Lalande	May	4	M	14	43	10 41		76	56	9 3	7 5
			5	M		43	10 44			56	9 7	7 6
			6	M		43	10 44			56	8 9	7 5
			18	R		43	10 41			56	10 4	
555	9 Libræ α	Apl	1	M	14	43	18 11	5	105	28	13 0	
		May	2	M		43	18 15			28	13 2	
		June	20	R		43	18 14			28	13 2	
		July	10	M		43	18 21			28	12 0	
556	27123 Lalande	May	7	M	14	47	19 89		109	27	7 4	7 8
			8	M		47	20 04			27	7 5	7 8
			9	M		47	20 02			27	8 9	
			27	R		47	20 09			27	7 9	9 0
557		May	15	M	14	51	31 68	5	123	12	29 6	8 9
558		May	8	M	14	57	38 39		131	30	27 2	8 3
559	43 Bootis ψ	May	29	R	14	58	34 52	5	62	31	0 1	
		June	10	M		58	34 56			30	59 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
						h	m	s						
559	13 Bootis ψ		June	11	M	14	58	34 54		62	30	59 8		
			July	10	M		58	34 45			30	58 4		
				11	M		58	34 53			30	58 6		
560	7079 Taylor		May	11	M	15	3	16 26		123	7	1 1		
561			May	15	M	15	3	30 06		122	18	47 9	8 5	
562	21 Libræ ι^1		May	4	M	15	4	25 09		109	16	11 3	5 6	
				30	R		4	25 03			16	11 6		
563	111 R P L		May	9	M	15	5	51 04	5	5	31	9 1		
		s p	Dec	12	M		5	51 46	3		31	8 0		
564			May	27	R	15	6	39 40	5	130	26	16 1	8 9	
565	27 Libræ β		May	23	R	15	9	38 57		98	52	30 6		
				29	R		9	38 26			52	30 0		
			June	11	M		9	38 32			52	29 9		
				20	R		9	38 26	4		52	31 2		
				26	R		9	38 19			52	30 0		
				27	R		9	38 17			52	29 0		
566			May	21	R	15	11	47 26		130	23	46 9	9 2	
567			May	15	M	15	11	8 23		123	7	17 9	9 2	
568	S Serpentis Var 3		May	27	R	15	15	11 94	4	75	11	28 9	10 3	
569			May	20	R	15	20	19 71		130	8	21 5	9 0	
570	32 Libræ ξ^1		May	11	M	15	20	32 04		106	14	11 0		
				30	R		20	32 11			14	9 4		
571			May	28	R	15	21	3~~7~~6 08		129	25	17 1	9 0	6/
572	7220 Taylor		June	2	M	15	22	2 85		123	6	20 8	7 9	
573	111 R P L	s p	Dec	15	M	15	2	52 68	3	2	14	49 8		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	m	s						
574	7210 Taylor	May	21	R	15	24	20 21		130	1	16 1	7 8	
575		May	15	M	15	24	56 73		122	43	21 4	7 9	
576	5 Coronæ Borealis α	May	23	R	15	28	53 12		6[illegible]	49	21 2		
		June	27	R		28	53 23	5		40	20 2		
		July	10	M		28	53 33			49	19 2		
577		May	20	R	15	28	55 03		119	~~33~~	~~51 0~~	8 8	37 34 4
578		May	28	R	15	30	6 00		129	33	11 7	9 3	
579	43 Libræ κ	May	4	M	15	31	3 55		109	13	51 7	5 0	
580		May	18	R	15	31	46 79		129	1	16 1	8 3	
581	XV 704 W B D	May	15	M	15	37	12 38		92	34	38 9	7 0	
			16	R		37	12 47			34	37 8	8 5	
			20	R		37	12 44	5		34	38 7	9 7	
582	24 Serpentis α	May	23	R	15	37	31 29		83	8	27 6		
		June	20	R		37	31 28			8	27 9		
			26	R		37	31 26			8	27 5		
			27	R		37	31 27			8	26 9		
		July	10	M		37	31 23			8	26 3		
			13	M		37	31 19			8	26 7		
583	28787 Lalande	May	27	R	15	42	3 02		92	48	12 5	8 7	
			29	R		42	2 82			48	12 7		
		June	9	M		42	2 84			48	11 4	8 0	
584	R Coronæ Bor Var 1	May	20	R	15	42	55 73	4	61	25	16 8	7 8	
		June	10	M		42	55 89			25	17 0	7 0	
585	R Serpentis Var 2	May	16	R	15	44	22 70		74	26	~~27 0~~	9 4	54 9
586	45 Libræ θ	June	27	R	15	46	1 66	4	106	19	27 5		
587		June	1	M	15	50	59 16		113	45	3 8	7 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s					
588	7 Scorpii δ		June	27	R	15	52	11 19	1	112	13	43 1	
589	7439 Taylor		May	20	R	15	54	22 91	5	126	11	53 8	8 5
590	8 Scorpii β^1		Apl	28	P	15	57	28 62		109	25	38 6	
			May	21	R		57	28 56			25	39 0	
				30	R		57	28 52			25	38 2	
			June	26	R		57	28 15	5		25	39 3	
			July	13	M		57	28 14			25	38 1	
				14	M		57	28 53			25	38 1	
591	29391 Lalande		May	2	I	16	1	45 42		102	41	12 9	
				29	R		1	45 10			41	13 6	
			July	13	M		1	45 12			41	14 0	7 0
				14	M		1	45 52			41	13 1	7 0
592	116 R P L		June	30	R	16	4	55 30	3	4	18	37 2	
		s p	Nov	21	P		4	55 12	3		18	33 8	
		s p		26	R		4	55 76	3		18	36 8	
593	XVI 83 W B E		May	30	R	16	5	59 73	1	102	40	55 2	
594	1 Ophiuchi δ		July	16	R	16	7	10 31		93	20	20 9	
595	29610 Lalande		May	29	R	16	8	6 82	5	105	32	21 2	
596	R Scorpii Var 1		Apl	28	P	16	9	29 13	2	112	36	12 2	10 5
			May	1	P		9	29 32			36	11 3	10 3
				2	P		9	29 26	4		36	11 1	10 3
				16	R		9	29 55	3		36	15 1	10 7
597			July	18	R	16	9	39 76	4	112	33	22 5	10 0
598	20 Scorpii σ		June	1	M	16	12	52 00		115	15	37 9	
599	15552 O A S		May	30	R	16	13	10 71	4	107	21	51 8	9 0
600			June	2	M	16	14	7 95		116	10	55 2	7 5
601	U Scorpii Var 1		May	21	R	16	14	37 03	5	107	33	7 1	
				23	R		14	37 15	1		33	5 7	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
602		May	20	R	16	15	42 36	6	128	7	31 7	9 5
603	15607 O A S	June	11	M	16	16	48 38		107	11	21 1	9 0
			30	R		16	48 17	5		11	19 7	
		July	13	M		16	48 13			11	20 0	9 0
604		May	28	R	16	17	55 39	5	129	30	26 5	9 2
605	21 Scorpii α	Apl	28	P	16	21	0 81		116	7	29 2	
		May	1	P		21	0 69			7	28 1	
			2	I		21	0 70			7	27 6	
			4	M		21	0 73			7	27 6	
			5	M		21	0 68			7	28 0	
		July	13	M		21	0 70	5		7	27 9	
			14	M		21	0 60			7	26 1	
606	23 Scorpii τ	May	4	M	16	27	21 69		117	55	42 2	
		„	5	M		27	21 37			55	11 8	
607	5784 Brisbane	July	20	R	16	30	49 55	4	150	39	19 7	9 5
608		June	2	M	16	34	32 [illegible]3		131	6	51 5	7 8
609	40 Herculis 3	May	2	P	16	36	7 11	6	58	8	51 2	
		July	11	M		36	7 32			8	~~47 2~~ 48	
			16	R		36	7 20			8	50 9	
			18	R		36	7 25			8	50 6	
		Aug	3	M		36	7 35			8	52 5	
610	15952 O A S	May	20	I	16	39	18 72	6	111	55	24 7	9 2
611	S Herculis Var 3	May	2	P	16	45	39 77		74	49	32 0	8 0
		June	3	M		45	39 67			49	31 1	7 9
			9	M		45	39 60			49	32 6	7 8
612		May	5	M	16	48	49 65	5	125	31	11 1	8 0
613	27 Ophiuchi κ	June	4	M	16	51	10 94		80	24	33 6	
			23	R		51	11 04			24	35 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	*m*	*s*					
613	27 Ophiuchi κ	June	30	R	16	51	10 91		80	24	33 2	
		July	14	M		51	11 09	3		24	33 9	
			16	R		51	10 97			24	34 1	
			20	R		51	11 01			24	34 4	
			28	R		51	11 06			24	33 6	
		Aug	12	R		51	11 00	5		24	34 4	
614		June	2	M	16	52	1 15		122	48	45 1	8 2
615	16233 O A S	July	29	R	16	53	55 13	5	110	23	27 8	8 0
616	16268 O A S	June	1	M	16	56	24 05		119	50	1 1	7 5
617	7926 Taylor	July	11	M	16	59	41 77		136	50	57 9	8 0
618	64 Herculis α	May	1	I	17	8	24 17		75	27	4 1	
			2	I		8	21 34			27	4 8	
		June	29	R		8	24 01			27	4 7	
		July	1	M		8	23 99			27	3 7	
			18	R		8	24 01			27	3 8	
			23	R		8	24 02			27	5 0	
			28	R		8	24 07			27	4 2	
		Aug	3	M		8	23 96			27	3 7	
			12	M		8	21 05	2		27	3 7	
57 54 619		June	3	M	17	8	~~56 66~~	5	124	4	10 4	8 0
620	12 Ophiuchi θ	June	1	M	17	13	35 93		114	51	32 4	
			2	M		13	35 91			51	33 2	
		July	1	M		13	35 83	5		51	31 8	
			13	M		13	35 83			51	31 8	
			18	R		13	35 86			51	32 6	
			20	R		13	35 92			51	32 9	
			23	R		13	35 78			51	34 5	
		Aug	3	M		13	35 78			51	32 9	
			7	M		13	35 84	3		51	31 9	
621	11 Ophiuchi b	June	1	M	17	18	0 39		114	2	44 2	5 0
			2	M		18	0 27	5		2	44 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Magnitude
				h m s			
622	45 Ophiuchi *d*	May 5	M	17 18 36 0		119 41 21 7	
623	—Aræ δ	July 29	R	17 18 11 27		150 33 53 2	
624		July 20	R	17 29 21 26		125 11 36 6	8 7
		Aug 3	M	29 21 17		14 34 7	8 9
625	55 Ophiuchi α	May 1	P	17 28 34 65		71 20 15 3	
		June 29	R	28 34 43		20 16 9	
		July 1	M	28 34 45		20 16 1	
		23	R	28 34 52		20 16 9	
		28	R	28 34 47		20 16 8	
626		Aug 24	R	17 34 30 41	3	126 15 2 1	10 2
627	58 Ophiuchi	June 29	R	17 35 13 26		111 36 16 0	
		30	R	35 13 18		36 46 5	
628		Aug 12	M	17 39 29 41	6	127 21 33 1	8 5
629		June 3	M	17 39 51 70	5	126 28 18 6	8 0
630		June 29	R	17 43 16 46		128 36 10 7	7 7
631		July 20	R	17 44 58 68	4	128 47 40 0	9 0
632	7504 Lacaille	June 10	M	17 48 28 07	5	129 6 46 9	7 0
633		June 29	R	17 50 20 87	5	130 50 17 6	8 7
634	4 Sagittarii *b*	May 5	M	17 51 25 71		113 48 0 0	5 0
		Aug 24	R	51 25 53		47 59 4	
635	—Sagittarii γ	June 3	M	17 56 16 20	4	119 34 56 7	
636		Aug 24	R	18 2 45 05	6	131 44 29 9	9 0
		28	M	2 45 30	4	14 28 9	9 0
637		Aug 27	R	18 4 45 03	4	120 43 36 2	10 5

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	*m*	*s*					
638	13 Sagittarii μ^1	May	5	M	18	5	34 20		111	5	28 4	
		June	2	M		5	34 24	5		5	27 9	
			3	M		5	34 18			5	27 4	
			29	R		5	34 18			5	28 4	
		July	29	R		5	34 17			5	30 7	
		Aug	3	M		5	34 19			5	27 6	
			12	M		5	34 09	4		5	27 5	
			15	M		5	34 13			5	28 3	
		Sep	4	M		5	34 11	5		5	28 2	
639		June	10	M	18	6	1 14		122	25	10 8	8 0
640	23 Ursæ Minoris δ s *p*	Jan	9	M	18	16	32 55	3	3	23	46 4	
	s *p*		10	M		16	33 23	3		23	46 8	
	s *p*		19	R		16	32 51	3		23	46 5	
	s *p*		20	R		16	32 52	3		23	46 5	
	p	Feb	3	R		16	32 41	2		23	47 5	
	s *p*		9	R		16	31 89	3		23	49 1	
	s *p*		11	R		16	32 02	3		23	48 0	
	s *p*		17	R		16	32 86	3		23	47 3	
	s *p*	Mar	2	R		16	31 99	3		23	50 9	
641	22 Sagittarii λ	June	3	M	18	19	30 91		115	29	36 7	
642	—Telescopii δ	Aug	24	R	18	21	53 73		135	50	49 0	
643		Aug	24	R	18	28	12 72	5	135	34	34 5	8 9
644	3 Lyræ α	July	2	M	18	32	17 92		51	20	30 6	
			3	M		32	17 91			20	31 1	
			20	R		32	17 92			20	31 9	
		Aug	12	M		32	18 06			20	31 6	
			15	M		32	17 94			20	32 3	
		Sep	4	M		32	17 90			20	32 4	
645		July	10	M	18	35	44 43		137	11	3 4	7 5
		Aug	22	R		35	44 54			11	5 1	9 2
			24	R		35	44 28			11	3 3	9 2
			26	R		35	44 58	4		11	4 3	9 5

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s					
646	7872 Lacaille		Aug	27	R	18	42	15 77		136	~~48~~	~~7 0~~	6 3
647	7878 Lacaille		Sep	8	M	18	42	48 83		136	41	13 0	6 5
648	10 Lyræ β Var 1		July	2	M	18	45	1 26		56	47	39 7	
				3	M		45	1 26			47	40 2	
			Aug	26	R		45	1 19			47	41 1	
			Sep	12	M		45	1 30	5		47	41 2	
649			Sep	15	M	18	46	49 55	4	137	44	59 3	8 0
650	13 Lyræ Var 2		July	31	R	18	51	9 71	5	46	13	59 1	
651			Aug	22	R	18	51	58 59		149	55	55 2	9 3
652	39 Sagittarii o		June	30	R	18	56	28 18		111	56	19 1	
			July	1	M		56	28 30			56	18 1	
653	17 Aquilæ 3		July	2	M	18	59	6 81		76	20	14 6	
				3	M		59	6 57			20	16 6	
			Aug	22	R		59	6 71	4		20	15 9	
				26	R		59	6 69			20	16 8	
			,	28	M		59	6 68			20	16 4	
			Sep	12	M		59	0 62			20	16 8	
				15	M		59	6 75			20	15 2	
654	131 R P L	*s p*	Jan	24	R	18	59	10 74	3	3	28	5 1	
		s p	Mar	12	M		59	10 15	2		28	3 7	
655	R Aquilæ Var 2		July	31	R	18	59	46 23	4	81	58	30 2	9 3
656	41 Sagittarii π		June	30	R	19	1	36 73		111	14	16 6	
			Aug	24	R		1	36 80			14	16 5	
657			July	13	M	19	3	1 64		139	22	47 1	8 0
658	T Sagittarii Var 3		July	31	R	19	8	19 78	5	107	12	28 4	8 9
			Aug	3	M		8	19 78			12	27 3	
				12	M		8	19 87	4		12	28 0	8 7
				24	R		8	19 65	5		12	29 3	9 4

45′ 6.9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
659	R Sagittarii Var 1	Aug	26	R	19	8	39 23		109	32	44 1	8 7
		Sep	15	M		8	39 22			32	43 4	9 1
660		July	31	R	19	9	56 41	5	107	9	47 9	8 3
		Aug	3	M		9	56 44	6		9	47 5	
			24	R		9	56 43	5		9	42 7	8 5
661		July	10	M	19	9	59 69		146	13	2 1	8 0
662	25 Aquilæ ω	July	3	M	19	11	23 16		78	38	57 7	
		Aug	22	R		11	23 08			38	57 8	
			28	M		11	23 11			38	56 8	
		Sep	4	M		11	23 12			38	57 3	
			12	M		11	23 08			38	57 5	
663	44 Sagittarii ρ^1	June	4	M	19	13	43 45	4	108	6	6 5	
		July	29	R	19	13	43 46			6	7 7	
664	45 Sagittarii ρ^2	Aug	24	R	19	13	51 24	5	108	33	32 8	
665	30 Aquilæ δ	July	2	M	19	18	35 37		87	9	19 4	
		Aug	27	R		18	35 29			9	21 1	
		Sep	14	M		18	35 41			9	20 3	
		,	15	M		18	35 23	2		9	20 9	
666	8950 Taylor	July	10	M	19	22	3 94	5	143	28	11 1	6 0
667	52 Sagittarii h^2	July	31	R	19	28	21 89		115	10	57 8	
		Aug	24	R		28	21 96			10	57 8	
668	8173 Lacaille	July	10	M	19	31	32 04	5	143	15	37 3	
669	R Cygni Var 3	Aug	22	R	19	33	10 30	4	40	4	55 5	10 3
670	56 Sagittarii f	June	3	M	19	38	22 08		110	5	~~3 1~~	14 1
671	50 Aquilæ γ	Aug	24	R	19	39	44 61		79	43	5 8	
			27	R		39	44 65			43	6 4	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	*m*	*s*					
672	50 Aquilæ γ	Aug	28	M	19	39	44 63		79	43	5 7	
		Sep	4	M		39	44 70			43	3 0	
			8	M		39	44 63			43	[illegible] 6	
672	53 Aquilæ α	Aug	24	R	19	44	5 86	5	81	29	28 2	
		Sep	14	M		44	5 86			29	27 9	
673	—Cygni χ Var 2	July	31	R	19	45	17 88	5	57	25	51 3	5 7
674	55 Aquilæ η	Aug	22	R	19	45	29 50		80	20	37 1	5 0
			28	M		45	29 49			20	36 0	5 0
675	60 Aquilæ β	Aug	24	R	19	48	34 90		83	55	58 9	
		Sep	8	M		48	34 92			55	58 5	
			12	M		48	34 88			56	0 1	
			14	M		48	34 85			55	59 7	
			15	M		48	34 87			55	58 8	
676		July	13	M	19	49	28 86	5	145	56	59 3	8 5
677		Aug	22	R	19	52	55 25	5	147	11	2 4	9 2
678	— Ursæ Minoris λ *s p*	Feb	4	R	20	1	4 48	3	1	6	4 3	
	s p	Mar	3	M		1	3 85	3		6	4 9	
	s p		5	M		1	3 38	3		6	3 7	
679	R Capricorni Var 1	Aug	27	R	20	3	37 20	5	104	40	14 7	10 0
		Oct	6	M		3	37 07			40	12 4	9 8
690 680		July	13	M	20	4	~~6 47~~		147	14	43 1	8 2
681		Sep	15	M	20	7	38 36	5	81	22	38 0	9 2
682	R Sagittæ Var 1	July	31	R	20	7	9 44 ~~49 58~~	5	73	41	11 0	9 7
		Oct	5	M		7	8 21 ~~49 47~~			41	10 6	9 7
683	5 Capricorni α^1	July	1	M	20	10	3 01		102	55	43 7	
164	6 Capricorni α	June	4	M	20	10	27 12		102	58	0 2	
		July	29	R		10	26 97			58	3 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
684	6 Capricorni α^2	Aug	28	M	20	10	26 93		102	58	0 [illegible]	
		Sep	8	M		10	27 02			58	0 9	
			14	M		10	26 97			58	1 2	
			18	R		10	26 94			58	0 8	
			23	R		10	26 90			58	0 8	
685	34 Cygni	Aug	22	R	20	12	44 12	3	52	23	30 7	6 0
		Oct	2	M		12	44 52			23	31 4	5 9
		,	6	M		12	44 41			23	28 9	5 9
686	— Pavonis α	July	29	R	20	14	47 13	4	147	10	14 4	
687	8441 Lacaille	Oct	7	M	20	18	9 46		121	7	9 6	8 6
688	11 Capricorni ρ	June	4	M	20	21	2 53		108	15	49 6	
		July	1	M		21	2 45			15	49 8	
			31	R		21	2 49	5		15	50 8	
		Aug	18	R		21	2 51			15	51 4	
		,	27	R		21	2 53			15	50 0	
		Sep	15	M		21	2 46	5		15	50 0	
		,	18	R		21	2 50	6		15	49 5	
		,	23	R		21	2 48			15	51 2	
		Oct	1	M		21	2 37			15	50 3	
		,	8	M		21	2 56			15	50 8	
		,,	9	M		21	2 47			15	49 5	
			10	M		21	2 50			15	49 9	
689		Oct	7	M	20	27	46 43		143	16	38 9	8 8
690	24 Cephei (Hev)	Oct	8	M	20	28	56 11	2	1	17	~~20 4~~	7 9
691		Oct	2	M	20	29	40 82	5	143	52	14 6	9 0
692	143 R P I	Oct	6	M	20	29	50 61	5	5	18	42 2	
693		Oct	10	M	20	30	47 79		149	55	34 7	8 1
694	S Capricorni Var 2	Aug	22	R	20	33	53 78		109	32	34 9	9 0
		Sep	14	M		33	53 92			32	33 6	9 3

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude	
					h	m	s						
695	[illegible]	July	31	R	20	36	44 82		73	23	17 5	9 2	
		Sep	18	R		36	44 84			23	16 9	8 8	
696	50 Cygni α	July	29	R	20	36	45 64		45	12	29 3		
697	S Delphini Var 2	Oct	9	M	20	36	46 06		73	24	9 9	8 9	
698		Oct	7	M	20	38	4 22		143	3	29 6	9 3	
699	2 Aquarii ε	Aug	27	R	20	40	15 30		~~100~~	59	42 4		77
700	8571 Lacaille	Oct	10	M	20	42	48 35		150	13	10 8	7 7	
701	9633 Taylor	July	2	M	20	44	30 80	3	101	~~55~~	0 6	7 0	54
702	6 Aquarii μ	Aug	27	R	20	45	15 65		99	29	42 9		
703		Oct	8	M	20	47	35 56		149	2	5 8	8 9	
704	32 Vulpeculæ	Aug	22	R	20	48	43 20	5	62	27	39 6		
		Sep	18	R		48	43 21			27	41 2		
705		Oct	7	M	20	53	53 28	4	112	59	27 0	9 1	
706	~~R Vulpeculæ Var 2~~	Aug	27	R	20	58	23 38	3	66	~~42~~	~~55 8~~	10 5	43
		Sep	26	R		58	23 28	5		~~42~~	~~51 0~~	9 5	40
707		Oct	10	M	20	58	30 79		148	52	55 0	9 8	
708	9772 Taylor	Sep	14	M	21	0	23 07		145	7	32 1	7 5	
709	61 Cygni (1st)	Aug	18	R	21	0	45 14		51	55	22 8		
710	13 Aquarii ν	July	2	M	21	2	7 64		101	55	26 6		
			3	M		2	7 58	4		55	28 1		
711	64 Cygni ζ	Aug	18	R	21	7	6 28		60	20	1 7		
		Sep	30	R		7	6 25			20	1 9		
		Oct	1	M		7	6 32			20	1 5		

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
711	64 Cygni 3	Oct	3	M	21	7	6 36		60	20	1 5	
			5	M		7	6 30			20	0 8	
			23	R		7	6 35			20	2 0	
712	8748 Lacaille	Sep	14	M	21	9	43 32	4	145	7	56 0	8 9
713	22 Aquarii β	July	31	R	21	24	20 59		96	10	19 9	
		Sep	23	R		24	20 58			10	20 3	
			28	R		24	20 71			10	20 9	
			30	R		24	20 68	5		10	20 0	
		Oct	1	M		24	20 73			10	20 0	
		,	5	M		24	20 55			10	19 8	
		,	7	M		24	20 68			10	19 5	
		,	8	M		24	20 64			10	19 9	
			9	M		24	20 62			10	19 8	
			10	M		24	20 65			10	20 5	
			23	R		24	20 70			10	20 7	
714		Sep	14	M	21	25	45 04	5	140	23	42 6	9 0
715	23 Aquarii ξ	July	31	R	21	30	27 30		98	28	1 7	
		Sep	23	R		30	27 29			28	1 2	
716	10032 Taylor	Oct	6	M	21	30	37 36	5	142	58	30 5	6 3
717	10065 Taylor	Oct	8	M	21	34	23 88	4	145	7	32 2	6 2
718	8 Pegasi ε	Sep	26	R	21	37	27 42		80	45	7 1	
			28	R		37	27 37	3		45	6 6	
		Oct	3	M		37	27 40			45	6 1	
			6	M		37	27 38			45	5 8	
			7	M		37	27 36			45	6 2	
			10	M		37	27 36			45	5 6	
719	— Cephei μ Var 1	Aug	24	R	21	39	18 68		31	50	51 1	5 5
		Oct	5	M		39	18 97			50	52 5	5 2
			9	M		39	18 94			50	51 0	5 5
720	16 Pegasi	Sep	26	R	21	46	49 75		64	43	7 0	
			28	R		46	49 70			43	6 9	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s		°	′	″	
720	16 Pegasi		Sep	30	R	21	46	49 73		64	43	7 5	
			Oct	3	M		46	49 76			43	8 4	
				6	M		46	49 80			43	6 1	
				7	M		46	49 73			43	8 2	
				8	M		46	49 67			43	7 0	
			,	23	R		46	49 67			43	7 9	
721	10190 Taylor		Oct	14	M	21	51	1 58		146	32	12 3	6 0
722			Aug	24	R	21	53	45 64	5	150	49	33 5	9 7
			Nov	2	M		53	45 94	3		49	34 0	9 6
723			Sep	14	M	21	58	8 61	1	136	2	51 4	9 3
724	34 Aquarii α		Sep	30	R	21	58	44 73		90	59	3 9	
			Oct	1	M		58	44 58			59	3 1	
				3	M		58	44 71			59	4 3	
				5	M		58	44 71			59	4 0	
				14	M		58	44 78			59	3 7	
725			Oct	5	M	22	5	21 38		101	6	5 1	9 6
				6	M		5	21 04	3		6	5 7	9 4
726			Oct	14	M	22	9	2 20		98	22	21 4	7 9
727			Oct	7	M	22	9	3 86	5	146	27	35 2	9 0
728	43 Aquarii θ		Aug	27	R	22	9	36 11		98	27	51 3	
729	48 Aquarii γ		July	31	R	22	14	34 62		92	4	36 0	
			Aug	27	R		14	34 72	6		4	36 0	
730			Oct	17	R	22	15	17 87	5	82	47	40 5	
731			Oct	6	M	22	18	46 99	5	140	46	3 8	9 6
732	150 R P L	s p	Feb	2	S	22	23	41 72	3	4	34	56 7	
		s p	Mar	9	M		23	42 63	3		35	0 1	
		s p		18	M		28	42 54	3		35	0 3	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s		°	′	″	
732	150 R P L	s p	Apl	30	M	22	23	42.30	3	4	34	59.6	
			Nov	2	M		23	42.04	3		35	2.3	
				4	M		23	41.96	3		35	2.4	
733	21 Cephei δ		July	31	R	22	24	5.40	5	32	17	8.7	5.7
			Sep	8	M		24	5.23	3		17	10.0	5.5
			Oct	5	M		24	5.34			17	9.3	5.5
				14	M		24	5.54			17	10.3	5.6
734			Oct	7	M	22	24	36.10	5	146	50	51.5	9.8
735			Oct	6	M	22	25	48.37		141	30	31.5	8.0
736	62 Aquarii η		July	31	R	22	28	18.80		90	49	23.4	
			Sep	25	R		28	18.97	5		49	23.0	
			Oct	2	M		28	18.81			49	22.4	
				9	M		28	18.82			49	21.7	
			,,	13	M		28	19.05			49	21.9	
				14	M		28	18.96			49	23.4	
			,,	16	R		28	18.90			49	22.5	
				17	R		28	18.91			49	21.4	
			Nov	3	M		28	18.83			49	23.5	
737			Oct	8	M	22	32	3.46		118	8	5.9	6.0
738	42 Pegasi ζ		Oct	5	M	22	34	37.76		79	52	58.5	
				10	M		34	37.60			52	58.3	
			,,	17	R		34	37.74			52	59.1	
			Nov	4	M		34	37.59			53	0.4	
739			Oct	6	M	22	37	35.40	5	145	46	57.5	6.6
740	XXII 814 W B Γ		Sep	26	R	22	40	31.06		87	48	59.4	8.9
741			Oct	16	R	22	40	48.26		142	38	21.7	9.1
			Nov	4	M		40	48.65	3		38	19.5	9.1
742			Oct	7	M	22	44	39.96		115	38	18.7	10.0
				27	R		44	40.19	5		38	20.5	9.3

77 Taylor

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
743		Oct	8	M	22	44	46 67		148	34	50 3	7 8
		Nov	11	M		44	46 63			34	51 6	8 0
744	S Aquarii Var 2	Oct	17	R	22	49	45 50		111	4	27 6	8 9
			27	R		49	45 65			4	25 7	8 7
745	24 Piscis Australis α	Oct	6	M	22	50	4 32		120	20	50 7	
			7	M		50	4 38			20	51 0	
			9	M		50	4 33			20	51 7	
			14	M		50	4 38			20	52 6	
			16	R		50	4 38			20	51 5	
		Nov	6	M		50	4 42			20	52 8	
			13	M		50	4 44			20	51 6	
			14	M		50	4 46			20	51 9	
746		Oct	10	M	22	51	22 53		151	33	39 0	9 2
747		Oct	13	M	22	51	47 53		85	26	50 2	9 3
748	9353 Lacaille	Sep	8	M	22	56	32 24		144	41	54 1	6 0
749		Nov	7	M	22	57	7 80		140	38	17 9	9 0
750	53 Pegasi β Var 1	Oct	5	M	22	57	8 24	5	62	39	36 2	
751	54 Pegasi α	Oct	8	M	22	57	56 18		75	31	54 3	
			16	R		57	56 23			31	53 7	
			24	R		57	56 31			31	51 3	
		Nov	11	M		57	56 24	5		31	51 4	
752		Oct	9	M	22	59	16 14		150	22	26 9	9 8
753	9377 Lacaille	Oct	10	M	23	2	8 81		151	18	22 3	6 8
		Nov	13	M		2	8 60			18	22 3	6 2
754	90 Aquarii φ	Aug	29	R	23	7	13 63	5	96	47	14 0	
755	9405 Lacaille	Oct	9	M	23	7	22 68		150	26	26 5	8 3
			26	R		7	22 76			26	25 4	8 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°	′	″	
755	9405 Lacaille	Oct	27	R	23	7	22 78	5	150	26	24 5	7 5
		,	30	R		7	22 85	5		26	23 4	8 8
756	6 Piscium γ	Oct	13	M	23	10	3 69		87	27	57 4	
			14	M		10	3 69			27	59 2	
			16	R		10	3 77			27	57 5	
			17	R		10	3 70			27	57 1	
		Nov	3	M		10	3 84			27	56 6	
			5	M		10	3 76			27	58 3	
			11	M		10	3 82			27	57 4	
			13	M		10	3 75			27	57 7	
757		Oct	10	M		11	2 03		151	16	3 7	9 8
758		Nov	14	M	23	11	15 10	5	136	54	41 3	8 6
759		Sep	8	M	23	12	4 13		137	4	14 6	8 5
760	96 Aquarii	Aug	28	M	23	12	17 65		95	52	21 0	5 5
761	4040 Groombridge	Oct	27	R	23	12	55 84	2	17	3	35 0	7 0
762	10748 Taylor	Oct	7	M	23	17	29 48	5	147	36	2 7	5 9
		Nov	6	M		17	29 44			36	3 3	6 0
			13	M		17	29 36			36	3 3	5 9
763		Oct	8	M	23	19	38 74		151	38	24 2	9 9
764	8 Piscium κ	Sep	25	R	23	19	54 50		89	29	39 6	
			26	R		19	54 55			29	39 0	
		Oct	2	M		19	54 68			29	40 0	
			13	M		19	54 48			29	39 9	
		,	17	R		19	54 56			29	38 3	
			24	R		19	54 50			29	40 4	
		,	26	R		19	54 50			29	39 3	
		,	31	R		19	54 52			29	38 8	
		Nov	3	M		19	54 52			29	39 4	
			4	M		19	54 64			29	39 8	
			5	M		19	54 59			29	38 9	
			20	R		19	54 53			29	39 6	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star		Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
						h	m	s		°	′	″	
765			Sep	8	M	23	20	59 71		137	28	3 9	9 5
			Oct	30	R		20	59 97			28	5 0	9 0
766			Nov	7	M	23	23	33 84		148	57	55 0	8 8
767	10804 Taylor		Oct	7	M	23	27	26 26	3	147	34	54 1	6 4
				27	R		27	26 36			34	54 7	6 7
			Nov	4	M		27	26 66			34	52 4	6 0
768			Oct	6	M	23	27	42 50	5	118	15	5 2	8 8
769	158 R P L	s p	Mar	20	R	23	27	49 96	4	3	26	54 7	
		s p		24	R		27	49 83	3		26	52 1	
		s p	,	26	R		27	49 78	3		26	55 9	
		s p	,,	28	R		27	49 72	3		26	53 3	
		s p	,	31	R		27	49 62	3		26	55 6	
		s p	Apl	23	R		27	49 91	3		26	53 3	
		s p	May	2	M		27	49 68	3		26	56 8	
			Sep	28	R		27	49 82	3		26	53 7	
			Oct	17	R		27	50 29	3		26	55 1	
			,	31	R		27	49 79	3		26	54 8	
			Nov	9	M		27	50 01	3		26	54 4	
770			Sep	8	M	23	29	51 04	6	137	20	27 5	10 0
			Oct	30	R		29	51 35			20	23 7	9 0
771			Nov	7	M	23	30	21 40	5	148	57	0 4	8 4
772	17 Piscium ι		Aug	29	R	23	32	54 22		85	6	57 6	
			Sep	25	R		32	54 26			6	58 1	
				26	R		32	54 28			6	57 4	
			Oct	2	M		32	54 32			6	57 2	
				26	R		32	54 25			6	59 4	
				27	R		32	54 26	5		6	58 7	
			Nov	2	M		32	54 22			6	59 2	
				3	M		32	54 30			6	58 7	
				5	M		32	54 25			6	57 8	
				11	M		32	54 31			6	57 9	
				20	R		32	54 27			6	58 2	

bad

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
773		Nov	4	M	23	34	17 16	5	147	27	44 8	9 2
774		Sep	28	R	23	36	43 67	5	106	2	41 7	9 2
775	— Sculptoris δ	Aug	29	R	23	41	47 10		118	53	15 5	
		Oct	2	M		41	47 00			53	16 7	
			13	M		41	47 09			53	17 2	
			26	R		41	47 17			53	16 7	
			27	R		41	47 23			53	16 4	
			30	R		41	46 97			53	15 6	
			31	R		41	47 08			53	16 3	
		Nov	2	M		41	47 19			53	17 5	
			4	M		41	47 04			53	16 7	
			5	M		41	47 07			53	16 2	
			6	M		41	47 09			53	17 8	
			7	M		41	47 04			55	16 1	
		,	9	M		41	47 14			53	16 0	
776		Oct	10	M	23	42	0 32		150	50	19 7	9 2
		Nov	20	R		42	0 21	5		50	17 9	8 0
777	9638 Lacaille	Oct	8	M	23	46	58 30		150	18	19 0	7 7
		Nov	11	M		46	58 35			18	20 0	7 8
778	R Cassiopeæ V u 3	Sep	28	R	23	51	27 44	5	39	22	30 2	9 5
779		Nov	13	M	23	51	55 83	5	143	16	18 8	9 4
780	28 Piscium ω	Aug	29	R	23	52	16 69		83	53	42 3	
		Oct	27	R		52	16 61			53	43 2	
			30	R		52	16 60			53	42 2	
		Nov	2	M		52	16 56			53	43 7	
			6	M		52	16 56			53	43 9	
781	10090 Taylor	Oct	10	M	23	56	50 96		148	35	29 9	9 3
		Nov	11	M		56	50 80	5		35	30 1	9 1
782	10994 Taylor	Oct	9	M	23	57	44 29		147	36	20 6	8 0

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863

REDUCED TO JANUARY 1 OF THAT YEAR

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
1	21 Androm α (*Alpherat*)	2 0		0	1	18 65	61	39	59 5	4	0 84
2		6 3	2	0	6	3 64	148	40	36 5	2	0 82
3	88 Pegasi γ (*Algenib*)	2 7		0	6	10 97	75	34	43 5	6	0 81
4		8 9	2	0	9	19 89	149	32	11 4	2	0 82
5		9 4	1	0	12	44 45	150	26	58 0	1	0 84
6	41 Piscium *d*	6 0		0	13	32 96	82	34	16 0	1	0 73
7	R Andromedæ Var 1	8 4	5	0	16	48 16	52	10	55 4	5	0 76
8		9 7	4	0	17	34 73	149	35	29 5	4	0 83
9	45 Piscium	6 8		0	18	33 19	83	3	59 8	3	0 84
10	12 Ceti	6 5		0	23	2 81	94	42	54 2	6	0 80
11		10 5	1	0	25	18 92	76	9	33 2	1	0 89
12		9 6	6	0	28	50 66	89	7	55 6	7	0 88
13		9 6	9	0	30	44 81	89	7	54 3	10	0 80
4510 14	18 Cassiopeæ α Var 1	3 0		0	32	45 ~~04~~ 10	34	12	54 1	2	0 93
15	1097 Lalande	8 1	6	0	34	32 75	89	0	17 3	6	0 86
16	1123 Lalande	9 0	8	0	35	38 90	89	3	21 7	8	0 87
17	16 Ceti β	2 0		0	36	42 69	108	44	20 9	2	0 94
18	1198 Lalande	8 8	8	0	38	3 50	88	56	37 0	9	0 90
19	0 658 W B E	9 5	8	0	38	34 94	89	2	32 4	9	0 89
20	63 Piscium δ	4 9		0	41	34 55	83	9	41 0	2	0 77
21		9 3	5	0	41	37 03	89	6	56 0	6	0 91
22		9 9	9	0	42	5 98	88	49	48 6	10	0 86
23	0 806 W B E	9 7	7	0	46	36 84	88	50	6 3	7	0 85
[48] 24		9 1		0	4~~7~~8	52 11	133	47	34 4	1	0 75
25	1638 Lalande	7 8	6	0	50	37 46	88	57	25 0	7	0 87
26	1639 Lalande	8 9	5	0	50	39 34	88	38	54 9	7	0 89
27	271 Lacaille	7 8	1	0	52	39 79	151	26	17 1	1	0 77
28	1784 Lalande	8 1	7	0	54	55 91	88	12	48 3	7	0 86
29	71 Piscium ε	4 6		0	55	50 07	82	50	54 5	11	0 97
30	1879 Lalande	7 9	6	0	57	40 82	88	25	15 6	7	0 86
31	0 1031 W B E	9 0	7	0	59	4 86	88	6	8 9	7	0 89
32		9 8	10	1	2	8 88	87	57	27 7	10	0 83
33	1 15 W B E	9 4	9	1	2	57 08	87	39	1 8	9	0 98
34	2089 Lalande	8 7	5	1	3	24 39	88	10	34 9	7	0 93
35	33 Ceti	6 3		1	3	30 63	88	17	5 7	4	0 99

7 —R Andromedæ Var 1 —Period, 405 days —Range 6th to 13th magnitude
12 13 15 16 18 19 21 22 23 25 26 28 30 31 32 33 34 35 Comparison stars used with Mars in opposition in 1862 for investigation of the constant of Solar Parallax
14 —α Cassiopeæ Var 1 —Irregular Range 2 2 to 2 8 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
1	21 Andromedæ α	+ 3 0761	+ 0 0182	+ 0 009	– 20 056	+ 0 013	+ 0 15	4
2		+ 3 0140	– 0 0449		– 20 048	+ 0 021		
3	88 Pegasi γ	+ 3 0812	+ 0 0100	0 000	– 20 049	+ 0 022	+ 0 02	26
4		+ 2 9795	– 0 0452		– 20 039	+ 0 027		
5		+ 2 9411	– 0 0453		– 20 024	+ 0 033		
6	41 Piscium d	+ 3 0824	+ 0 0066	– 0 002	– 20 020	+ 0 036	– 0 01	66
7	R Andromedæ V 1	+ 3 1481	+ 0 0271		– 20 001	+ 0 043		
8		+ 2 8975	– 0 0419		– 19 996	+ 0 034		
9	45 Piscium	+ 3 0853	+ 0 0066		– 19 989	+ 0 046		89
10	12 Ceti	+ 3 0609	+ 0 0008	– 0 002	– 19 955	+ 0 055	+ 0 01	112
11		+ 3 1084	+ 0 0108		– 19 933	+ 0 059		
12		+ 3 0746	+ 0 0039		– 19 896	+ 0 065		
13		+ 3 0748	+ 0 0040		– 19 875	+ 0 069		
14	18 Cassiop α Var 1	+ 3 3519	+ 0 0553	+ 0 006	– 19 851	+ 0 080	+ 0 04	169
15	1097 Lalande	+ 3 0755	+ 0 0043		– 19 828	+ 0 076		
16	1123 Lalande	+ 3 0755	+ 0 0044		– 19 814	+ 0 079		
17	16 Ceti β	+ 2 9997	– 0 0055	+ 0 013	– 19 799	+ 0 080	– 0 02	196
18	1198 Lalande	+ 3 0761	+ 0 0045		– 19 779	+ 0 083		
19	0 658 W B E	+ 3 0758	+ 0 0046		– 19 772	+ 0 084		
20	63 Piscium δ	+ 3 1009	+ 0 0079	+ 0 008	– 19 727	+ 0 090	+ 0 05	222
21		+ 3 0758	+ 0 0047		– 19 726	+ 0 089		
22		+ 3 0770	+ 0 0048		– 19 718	+ 0 090		
23	0 806 W B E	+ 3 0776	+ 0 0051		– 19 642	+ 0 099		
24		+ 2 8063	– 0 0185		– 19 619	+ 0 093		
25	1638 Lalande	+ 3 0774	+ 0 0052		– 19 567	+ 0 107		
26	1639 Lalande	+ 3 0790	+ 0 0054		– 19 567	+ 0 107		
27	271 Lacaille	+ 2 5126	– 0 0289		– 19 529	+ 0 092		276
28	1784 Lalande	+ 3 0820	+ 0 0058		– 19 481	+ 0 115		
29	71 Piscium ε	+ 3 1125	+ 0 0087	– 0 002	– 19 468	+ 0 119	0 00	288
30	1879 Lalande	+ 3 0818	+ 0 0058		– 19 423	+ 0 120		
31	0 1031 W B E	+ 3 0834	+ 0 0061		– 19 392	+ 0 128		
32		+ 3 0849	+ 0 0063		– 19 323	+ 0 129		
33	1 15 W B E	+ 3 0870	+ 0 0065		– 19 304	+ 0 130		
34	2089 Lalande	+ 3 0837	+ 0 0062		– 19 298	+ 0 131		
35	83 Ceti	+ 3 0830	+ 0 0062	– 0 003	– 19 290	+ 0 131	+ 0 02	344

Mean Positions of Stars for 1863 *January* 1st,

(1st)

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
36	86 Piscium 3	6 0		1	6	34 48	83	9	0 7	3	0 79
37	1 101 W B E	8 9	6	1	7	42 74	87	54	18 0	7	0 90
38	1 Urs Min α (*Polaris*)	2 0		1	8	59 64	1	25	15 5	9	0 46
39		9 8	8	1	9	13 01	87	42	24 5	8	0 85
40	45 Ceti θ	3 0		1	17	10 52	98	53	29 5	12	0 93
41		8 1	2	1	23	24 95	87	44	17 2	2	0 92
42	R Piscium Var 1	10 2	1	1	23	34 40	87	49	43 4	1	0 98
43	99 Piscium η	4 0		1	24	9 33	75	21	43 4	10	0 90
44	102 Piscium π	6 0		1	29	50 21	78	33	39 1	1	0 82
45	525 Taylor	5 9	2	1	30	6 98	148	50	28 7	2	0 84
46	539 Taylor	5 6	2	1	31	43 67	148	58	16 6	2	0 84
47	α Eridani (*Achernar*)	1 0		1	32	36 71	147	56	2 7	2	0 93
48	106 Piscium ν	4 7		1	34	18 28	85	12	25 4	5	0 89
49	503 Lacaille	7 9	2	1	35	40 96	151	41	36 8	2	0 88
50	507 Lacaille	6 2	2	1	37	6 50	151	28	50 3	2	0 88
51	110 Piscium ο	4 5		1	38	9 67	81	31	59 8	1	0 89
52		9 3	2	1	39	51 51	149	27	40 1	2	0 83
53		9 7	2	1	46	7 56	148	58	15 1	2	0 90
54	6 Arietis β	2 7		1	47	4 60	69	51	48 8	13	0 92
55		9 4	2	1	48	31 09	150	5	31 0	2	0 87
56	582 Lacaille	8 6	2	1	50	52 76	145	44	39 6	2	0 84
57		9 6	2	1	59	21 58	150	2	49 0	2	0 87
58	13 Arietis α	2 0		1	59	27 31	67	11	15 3	10	0 94
59	630 Lacaille	6 0	2	1	59	46 48	145	32	17 9	2	0 86
60		9 6	2	2	1	1 59	149	49	21 9	2	0 83
61	697 Taylor	7 4	2	2	1	43 93	145	44	15 9	2	0 90
62	17 Arietis η	6 0		2	5	8 15	69	26	5 5	1	0 96
63	677 Lacaille	8 0	1	2	6	54 10	149	47	52 8	1	0 85
64		9 8	1	2	6	56 71	148	39	46 7	1	0 86
65	67 Ceti	6 0		2	10	9 05	97	3	20 0	6	0 95
66	68 Ceti ο Var 1	7 8	1	2	12	25 64	93	36	8 6	1	0 96
67		9 7	2	2	13	56 34	148	27	13 9	2	0 83
68		8 1	2	2	15	37 88	152	34	27 9	2	0 91
69	818 Taylor	8 3	2	2	19	6 29	147	26	14 9	2	0 82
70	73 Ceti ξ²	4 5		2	20	52 64	82	9	21 2	8	0 92

37—39—Comparison stars used with Mars in opposition in 1862 for investigation of the constant of Solar Parallax

42—R Piscium Var 1—Period, 345 days Range 7 5 to 12th magnitude

66—Mira Ceti Var 1—Period 331 days Range 2nd to 10th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s		′	″	
36	86 Piscium ζ	+ 3 1180	+ 0 0090		− 19 215	+ 0 139		368
37	1 101 W B E	+ 3 0863	+ 0 0066		− 19 186	+ 0 139		
38	1 Urs Min α	+ 19 0547	+ 13 1148	+ 0 065	− 19 153	+ 0 832	0 00	360
39		+ 3 0880	+ 0 0068		− 19 148	+ 0 142		
40	45 Ceti θ	+ 3 0029	+ 0 0018	− 0 007	− 18 929	+ 0 154	+ 0 22	420
41		+ 3 0909	+ 0 0078		− 18 741	+ 0 169		
42	R Piscium Var 1	+ 3 0902	+ 0 0078		− 18 730	+ 0 169		
43	99 Piscium η	+ 3 1974	+ 0 0142	0 000	− 18 719	+ 0 176	0 00	453
44	102 Piscium π	+ 3 1754	+ 0 0125	− 0 007	− 18 584	+ 0 185	− 0 03	488
45	526 Taylor	+ 2 2448	− 0 0135		− 18 525	+ 0 133		
46	539 Taylor	+ 2 2061	− 0 0129		− 18 471	+ 0 133		497
47	α Eridani	+ 2 2320	− 0 0128	+ 0 008	− 18 440	+ 0 137	+ 0 07	507
48	106 Piscium ν	+ 3 1168	+ 0 0091	− 0 004	− 18 382	+ 0 191	+ 0 04	518
49	503 Lacaille	+ 2 0655	− 0 0104		− 18 333	+ 0 130		
50	507 Lacaille	+ 2 0004	− 0 0099		− 18 282	+ 0 132		531
51	110 Piscium ο	+ 3 1517	+ 0 0111	+ 0 006	− 18 244	+ 0 200	− 0 01	537
52		+ 2 1155	− 0 0108		− 18 182	+ 0 138		
53		+ 2 0793	− 0 0082		− 17 948	+ 0 144		
54	6 Arietis β	+ 3 3038	+ 0 0183	+ 0 002	− 17 906	+ 0 226	+ 0 11	577
55		+ 2 0121	− 0 0067		− 17 840	+ 0 142		
56	652 Lacaille	+ 2 1588	− 0 0081		− 17 754	+ 0 155		
57		+ 1 9176	− 0 0031		− 17 306	+ 0 146		
58	13 Arietis α	+ 3 3521	+ 0 0203	+ 0 012	− 17 302	+ 0 252	+ 0 15	648
59	630 Lacaille	+ 2 0391	− 0 0059		− 17 374	+ 0 160		
60		+ 1 9137	− 0 0028		− 17 323	+ 0 148		
61	607 Taylor	+ 2 0778	− 0 0053		− 17 202	+ 0 162		659
62	17 Arietis η	+ 3 1326	+ 0 0188	+ 0 009	− 17 160	+ 0 260	− 0 01	682
63	677 Lacaille	+ 1 8611	− 0 0011		− 17 058	+ 0 150		
64		+ 1 9170	− 0 0021		− 17 057	+ 0 154		
65	67 Ceti	+ 2 9829	+ 0 0049	+ 0 008	− 16 907	+ 0 242	+ 0 14	704
66	ο Ceti Var 1	+ 3 0261	+ 0 0064	− 0 001	− 16 799	+ 0 248	+ 0 23	720
67		+ 1 8704	− 0 0005		− 16 726	+ 0 158		
68		+ 1 6347	+ 0 0055		− 16 644	+ 0 140		
69	818 Taylor	+ 1 8778	− 0 0001		− 16 478	+ 0 163		758
70	73 Ceti ξ²	+ 3 1782	+ 0 0117	+ 0 001	− 16 385	+ 0 276	+ 0 02	760

47 Proper Motions adopted from "*Stone's Catalogue*"
67 70 Proper Motions adopted from "*Greenwich Catalogues*"

Mean Positions of Stars for 1863 *January* 1st,

Margin note	Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year	Margin note
	71	λ Horologii	6 5	2	2	21	4 15	150	55	35 8	2	0 92	
	72	26 R P L	8 0		2	22	11 82	3	33	12 5	2	0 80	
	73		9 4	2	2	24	13 66	152	35	56 0	2	0 91	
	74		8 8	2	2	27	23 68	147	12	28 9	2	0 82	
	75	31 Arietis	5 5		2	29	9 86	78	8	55 0	1	0 89	
	76	849 Lacaille 1st	7 8	1	2	35	59 20	150	9	25 0	1	0 86	
	77	849 Lacaille 2nd	8 0	2	2	36	3 86	150	9	32 2	2	0 95	
	78	86 Ceti γ	3 3		2	36	12 22	87	20	38 7	6	0 91	
	79	38 Arietis	5 4		2	37	29 97	78	7	55 9	1	0 89	
	80	868 Lacaille	8 3	2	2	38	31 18	147	18	27 0	2	0 82	
	81		8 7	1	2	43	16 32	148	0	51 6	1	0 95	
	82		8 8	2	2	44	27 50	148	14	5 5	2	0 82	
	83		9 0	1	2	45	12 36	76	28	9 1	1	0 90	
	84	48 Arietis ε	4 3		2	51	22 99	69	12	37 9	2	0 82	
20 61	85		8 5	1	2	52	~~20 72~~	150	17	22 3	1	0 93	
	86	92 Ceti α (*Menkar*)	2 3		2	55	7 17	86	27	0 4	8	0 93	
	87	25 Persei ρ Var 2	4 0		2	56	24 33	51	41	38 0	1	0 94	
	88	26 Persei β Var 1	2 7		2	59	15 82	49	34	~~55 4~~	1	0 96	53 31
	89	1047 Taylor	6 0	1	2	59	50 11	151	20	4 8	1	0 85	
	90	33 R P L	5 8		3	0	29 83	5	35	3 8	2	0 02	
	91	57 Arietis δ	4 3		3	3	47 97	70	47	39 7	5	0 88	
	92		8 7	3	3	12	38 95	130	50	31 5	3	0 60	
	93	61 Arietis τ^1	5 5		3	13	19 33	69	20	59 4	2	0 89	
	94		9 2	1	3	14	49 93	150	6	32 6	1	0 82	
	95	1 Tauri ο	4 7		3	17	26 50	81	27	20 8	1	0 95	
	96		9 0	1	3	20	16 88	149	19	7 8	1	0 82	
	97	R Persei Var 3	10 0	2	3	21	20 23	54	48	15 4	2	0 97	
	98		7 5	1	3	21	56 75	88	12	37 5	1	0 88	
	99		9 2	2	3	25	51 95	87	53	30 3	2	0 89	
	100	1193 Lacaille	8 3	1	3	35	14 00	146	35	24 7	1	0 93	
	101	1200 Lacaille	6 7	1	3	36	23 16	146	40	44 3	1	0 87	
	102		9 0	1	3	38	3 95	136	13	2 8	1	0 90	
	103	25 Tauri η (*Alcyone*)	3 0		3	39	20 66	66	19	18 3	10	0 56	
	104		8 8	2	3	45	8 39	76	27	56 3	3	0 66	
	105	34 Eridani γ^1	3 0		3	51	38 25	103	54	2 6	8	0 59	

72 —352 Carrington
87 —ρ Persei Var 2 —Irregular —changes from 3 5 to 4 3 magnitude
88 —Algol.—Period 2 867 days —Range 2 5 to 4th magnitude
90 —595 Groombridge
97 —R Persei Var 3 —Period 209 days —Range 8 5 to 12 5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
71	λ Horologii	+ 1 6834	+ 0 0044		− 16 374	+ 0 149		762
72	26 R P L	+ 15 5894	+ 3 5830		− 16 317	+ 1 329		
73		+ 1 5539	+ 0 0073		− 16 214	+ 0 141		
74		+ 1 8275	+ 0 0016		− 16 048	+ 0 167		
75	31 Arietis	+ 3 2420	+ 0 0137	+ 0 017	− 15 955	+ 0 294	+ 0 09	798
76	849 Lacaille 1st	+ 1 6056	+ 0 0071		− 15 586	+ 0 154		
77	849 Lacaille 2nd	+ 1 6049	+ 0 0071		− 15 582	+ 0 154		
78	86 Ceti γ	+ 3 1111	+ 0 0094	− 0 011	− 15 575	+ 0 294	+ 0 19	837
79	38 Arietis	+ 3 2503	+ 0 0137	+ 0 008	− 15 503	+ 0 308	+ 0 10	844
80	868 Lacaille	+ 1 7476	+ 0 0040		− 15 448	+ 0 170		
81		+ 1 6726	+ 0 0057		− 15 178	+ 0 167		
82		+ 1 6522	+ 0 0062		− 15 110	+ 0 165		
83		+ 3 2844	+ 0 0144		− 15 066	+ 0 322		
84	48 Arietis ε	+ 3 4172	+ 0 0185	− 0 001	− 14 704	+ 0 343	+ 0 02	921
•0107 — 85		+ 1 4718	+ ~~0 0026~~		− 14 647	+ 0 153		
86	92 Ceti α	+ 3 1293	+ 0 0098	− 0 002	− 14 480	+ 0 328	+ 0 11	949
87	ρ Persei Var 2	+ 3 8070	+ 0 0332	+ 0 010	− 14 402	+ 0 393	+ 0 11	958
88	β Persei Var 1	+ 3 8746	+ 0 0356	− 0 002	− 14 226	+ 0 405	− 0 01	963
89	1047 Taylor	+ 1 8440	+ 0 0189		− 14 191	+ 0 145		968
90	33 R P L	+ 12 7618	+ 1 5797		− 14 150	+ 1 325	+ 0 08	960
91	57 Arietis δ	+ 3 4067	+ 0 0171	+ 0 010	− 13 945	+ 0 364	0 00	986
92		+ 2 2110	+ 0 0012		− 13 877	+ 0 246		
93	61 Arietis τ¹	+ 3 4485	+ 0 0175	− 0 001	− 13 833	+ 0 382	+ 0 03	1034
94		+ 1 3243	+ 0 0138		− 13 235	+ 0 151		
95	1 Tauri ο	+ 3 2245	+ 0 0115		− 13 062	+ 0 368		1057
96		+ 1 3441	+ 0 0131		− 12 872	+ 0 156		
97	R Persei Var 3	+ 3 7980	+ 0 0278		− 12 801	+ 0 432		
98		+ 3 1042	+ 0 0089		− 12 761	+ 0 355		
99		+ 3 1105	+ 0 0089		− 12 494	+ 0 360		
100	1193 Lacaille	+ 1 4363	+ 0 0105		− 11 842	+ 0 174		
101	1200 Lacaille	+ 1 4247	+ 0 0107		− 11 761	+ 0 173		
102		+ 1 8360	+ 0 0044		− 11 641	+ 0 223		
103	25 Tauri η	+ 3 5513	+ 0 0177	− 0 001	− 11 551	+ 0 430	+ 0 06	1166
104		+ 3 3398	+ 0 0124		− 11 132	+ 0 410		
105	34 Eridani γ¹	+ 2 7916	+ 0 0047	+ 0 002	− 10 655	− 0 350	+ 0 12	1234

75—87—Proper Motions adopted from "*Greenwich Catalogues*"
90—Proper Motion in Polar Distance from "*Radcliffe Polar List for* 1855"

Mean Positions of Stars for 1863 *January 1st,*

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
106		10 0	1	3	53	2 96	128	25	35 7	1	0 90
107	35 Tauri λ Var 1	4 5		3	53	5 59	77	~~54~~ 53	~~7 4~~ 58 8	2	0 02 [53 68 8]
108		8 1	1	3	53	38 68	143	8	33 2	1	0 95
109	37 Tauri A^1	4 7		3	56	35 88	68	17	46 2	3	0 87
110	7581 Lalande	9 0	1	3	58	10 39	74	52	31 1	2	0 10
111		10 2	2	4	3	20 50	68	30	27 8	2	0 49
112	7764 Lalande	8 4	2	4	3	24 92	74	44	1 5	2	0 10
113		9 2	1	4	3	41 01	146	56	38 5	1	0 90
114	38 Eridani o^1	4 4		4	5	10 72	97	11	51 6	2	0 50
115	1418 Lacaille	8 1	2	4	12	25 54	143	39	54 7	2	0 43
116		8 9	2	4	13	44 15	70	51	40 4	2	0 92
117		9 5	2	4	15	37 69	128	39	58 4	2	0 09
118		8 7	1	4	16	44 94	149	4	34 4	1	0 93
119	74 Tauri ε	3 7		4	20	37 18	71	7	36 8	11	0 34
120		10 2	1	4	21	58 85	80	28	12 0	1	0 98
121	1520 Lacaille	8 7	1	4	26	39 85	147	29	8 1	1	0 95
122	87 Tauri α (*Aldebaran*)	1 0		4	28	3 73	73	46	10 8	11	0 35
123		9 0	2	4	28	26 08	140	14	23 9	2	0 07
124		9 4	2	4	31	41 27	142	59	42 6	2	0 51
125		9 5	1	4	32	54 96	130	48	21 1	2	0 09
126	1566 Lacaille	8 0	1	4	35	44 77	148	28	31 1	1	0 95
127		9 5	2	4	36	15 84	64	19	23 1	2	0 90
128	1663 Taylor	8 0	1	4	36	48 54	138	48	16 4	1	0 05
129		9 5	1	4	39	28 24	128	57	40 0	2	0 08
130	1598 Lacaille	7 5	2	4	41	35 30	128	21	44 8	2	0 54
131		9 6	2	4	43	18 72	130	41	20 0	2	0 51
132	97 Tauri ι	5 5		4	43	~~21 63~~ 1 59	71	23	49 7	2	0 97
133	1625 Lacaille	8 3	2	4	44	57 42	140	1	54 0	2	0 05
134		8 9	2	4	45	26 91	129	25	9 0	2	0 09
135	3 Aurigæ ι	3 0		4	48	4 45	57	3	16 9	3	0 86
136	1761 Taylor	7 5	1	4	49	57 63	129	18	43 8	1	0 06
137	7 Aurigæ ε Var 1	3 5		4	52	8 56	46	23	0 7	2	0 09
138	1780 Taylor	9 0	1	4	52	~~15 45~~ 14 42	144	38	52 0	1	0 05
139		9 0	1	4	52	17 06	129	39	57 2	1	0 06
140	R Leporis Var 1	6 3	2	4	53	22 12	105	0	54 4	5	0 02

107 —λ Tauri Var 1 —Period 3 95 days —Range 3 5 to 4 3 magnitude
110 and 112 —Comparison stars for Asia in 1862
137 —ε Aurigæ Var 1 —Supposed to be irregularly variable
140 —R Leporis Var 1 —Period 438 days —Range 6th to 9th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
106		+ 2 1699	+ 0 0030		− 10 550	+ 0 274		
107	35 Tauri λ Var 1	+ 3 3159	+ 0 0115		− 10 546	+ 0 416		1241
108		+ 1 5528	+ 0 0082		− 10 505	+ 0 208		
109	37 Tauri A¹	+ 3 5290	+ 0 0153	+ 0 004	− 10 284	+ 0 446	+ 0 09	1257
110	7581 Lalande	+ 3 3836	+ 0 0124		− 10 166	+ 0 430		
111		+ 3 5318	+ 0 0147		− 9 773	+ 0 454		
112	7764 Lalande	+ 3 3908	+ 0 0121		− 9 767	+ 0 436		
113		+ 1 2766	+ 0 0290		− 9 747	+ 0 167		
114	38 Eridani o^1	+ 2 9239	+ 0 0058	− 0 002	− 9 632	+ 0 379	− 0 07	1290
115	1418 Lacaille	+ 1 4509	+ 0 0088		− 9 072	+ 0 196		
116		+ 3 4870	+ 0 0128		− 8 969	+ 0 459		
117		+ 2 1111	+ 0 0035		− 8 821	+ 0 281		
118		+ 1 0628	+ 0 0146		− 8 733	+ 0 144		
119	74 Tauri ε	+ 3 4868	+ 0 0120	+ 0 005	− 8 427	+ 0 468	+ 0 03	1376
120		+ 3 2762	+ 0 0090		− 8 319	+ 0 439		
121	1520 Lacaille	+ 1 1462	+ 0 0122		− 7 944	+ 0 157		
122	87 Tauri α	+ 3 4303	+ 0 0097	+ 0 004	− 7 831	+ 0 464	+ 0 17	1420
123		+ 1 5915	+ 0 0120		− 7 801	+ 0 217		
124		+ 1 4283	+ 0 0082		− 7 538	+ 0 196		
125		+ 2 0000	+ 0 0040		− 7 438	+ 0 274		
126	1566 Lacaille	+ 1 0380	+ 0 0123		− 7 208	+ 0 144		
127		+ 3 6724	+ 0 0130		− 7 166	+ 0 508		
128	1663 Taylor	+ 1 6440	+ 0 0059		− 7 121	+ 0 227		
129		+ 2 0571	+ 0 0037		− 6 902	+ 0 285		
130	1598 Lacaille	+ 2 0753	+ 0 0036		− 6 728	+ 0 288		
131		+ 1 9862	+ 0 0048		− 6 586	+ 0 277		
132	97 Tauri ι	+ 3 4972	+ 0 0100	+ 0 003	− 6 582	+ 0 485	+ 0 07	1498
133	1625 Lacaille	+ 1 5616	+ 0 0063		− 6 451	+ 0 219		
134		+ 2 0307	+ 0 0037		− 6 410	+ 0 284		
135	3 Aurigæ ι	+ 3 8961	+ 0 0144	− 0 003	− 6 191	+ 0 544	+ 0 02	1520
136	1761 Taylor	+ 2 0280	+ ~~0 0033~~		− 6 045	+ ~~0 060~~		
137	7 Aurigæ ε Var 1	+ 4 2906	+ 0 0199	0 000	− 5 852	+ 0 60›	0 00	1540
138	1780 Taylor	+ 1 2691	+ 0 0084		− 5 842	+ 0 180		
139		+ 2 0115	+ 0 0038		− 5 840	+ 0 284		
140	R Leporis Var 1	+ 2 7285	+ 0 0038		− 5 749	+ 0 382		

+ 0 285

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
				h	m	s						
141	102 Tauri ι	4 9		4	54	~~54.06~~ u b	68	36	35 9	1	0 97	[54 43]
142		9 1	3	4	55	54 63	130	17	46 1	3	0 10	
143	1811 Taylor	6 5	1	4	57	1 08	129	55	8 7	1	0 06	
144	1705 Lacaille	8 1	2	4	57	23.58	129	16	37 6	2	0 53	
145	2 Leporis ε	3 7		4	59	39.73	112	33	27 0	6	0 07	
146	15 Orionis	6 0		5	1	51.48	74	34	52 9	2	0 90	
147		9 0	2	5	4	0 27	131	45	47 3	2	0 09	
148	13 Aurigæ α (*Capella*)	1 0		5	6	34.36	44	8	~~28 4~~	1	0 12	— 44.0
149		8 3	2	5	6	50·01	129	6	7 9	2	0 09	
150	19 Orionis β (*Rigel*)	1 0		5	7	57·22	98	21	47 2	4	0 28	
151		9 4	2	5	12	49 82	129	40	10 0	2	0 09	
152	1822 Lacaille	7 9	2	5	15	41.40	141	43	17 0	2	0 09	
153	112 Tauri β	2 0		5	17	37 95	61	30	44 2	7	0 07	
154		8 7	3	5	18	40 94	129	58	4 4	3	0 37	
155		9 5	1	5	19	43.42	131	3	57 6	1	0 06	
156	34 Orionis δ Var 1	2 0		5	25	0.51	90	24	14 0	7	0 20	
157	11 Leporis α	3 0		5	26	41 36	107	55	22 3	5	0 08	
158	46 Orionis ε	2 0		5	29	15 75	91	17	33 5	3	0 07	
159	123 Tauri 3	3 5		5	29	27 46	68	56	41 2	1	0 08	
160		9 2	2	5	31	35 74	128	42	17 6	3	0 67	
161		9 2	2	5	32	39 85	128	41	17 9	2	0 58	
162	α Columbæ	2 0		5	34	41 37	124	8	56 9	5	0 08	
163	2113 Taylor	8 5	1	5	35	6 11	130	45	36 7	1	0 06	
164		9 2	1	5	36	41 64	129	57	52 4	1	0 13	
165		9 0	1	5	38	21 66	130	5	27 8	2	0 09	
166	1984 Lacaille	7 8	2	5	40	39 87	130	15	20 9	2	0 08	
167	54 Orionis χ^1	5 0		5	46	16 18	69	45	11 9	2	0 57	
168	2036 Lacaille	8 1	2	5	46	18 77	129	47	15 5	2	0 59	
169	58 Orionis α Var 2	1 0		5	47	45 30	82	37	18 5	12	0 22	
170		9 4	1	5	49	34 77	130	1	20 8	1	0 12	
171		9 0	1	5	52	39 45	129	32	35 1	1	0 12	
172		8 0	1	5	53	14 79	131	7	15 1	2	0 08	
173	2104 Lacaille	8 1	2	5	54	20 14	143	26	~~24 5~~	2	0 09	
174	62 Orionis χ	5 0		5	55	47 02	69	51	45 1	1	0 98	
175		9 3	2	5	56	7 47	129	57	12 8	2	0·09	

156 —δ Orionis Var 1 —Supposed to vary irregularly from 2 3 to 2 7 magnitude
169 —α Orionis Var 2 —(*Betelgeux*) —Irregularly variable from 1 0 to 1 5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
141	102 Tauri ι	+ 3 5748	+ 0 0095	+ 0 004	− 5 620	+ 0 503	+ 0 06	1551
142		+ 1 9824	+ 0 0038		− 5 535	+ 0 280		
143	1811 Taylor	+ 1 9954	+ 0 0038		− 5 442	+ 0 282		1561
144	1705 Lacaille	+ 2 0191	+ 0 0037		− 5 411	+ 0 286		
145	2 Leporis ε	+ 2 5357	+ 0 0033	+ 0 001	− 5 219	+ 0 359	+ 0 08	1575
146	15 Orionis	+ 3 4290	+ 0 0074	− 0 001	− 5 033	+ 0 486	− 0 03	1591
147		+ 1 9110	+ 0 0106		− 4 681	+ 0 273		
148	13 Aurigæ α	+ 4 4121	+ 0 0173	+ 0 008	− 4 633	+ 0 628	+ 0 43	1613
149		+ 2 0145	+ 0 0035		− 4 611	+ 0 288		
150	19 Orionis β	+ 2 8804	+ 0 0040	− 0 001	− 4 515	+ 0 412	+ 0 02	1623
151		+ 1 9866	+ 0 0035		− 4 099	+ 0 286		
152	1822 Lacaille	+ 1 4093	+ 0 0057		− 3 853	+ 0 204		
153	112 Tauri β	+ 3 7852	+ 0 0082	+ 0 003	− 3 686	+ 0 545	+ 0 20	1681
154		+ 1 9696	+ 0 0034		− 3 596	+ 0 285		
155		+ 1 9251	+ 0 0035		− 3 506	+ 0 279		
156	34 Orionis δ Var 1	+ 3 0626	+ 0 0038	+ 0 001	− 3 050	+ 0 443	+ 0 04	1730
157	11 Leporis α	+ 2 6441	+ 0 0029	+ 0 001	− 2 905	+ 0 383	0 00	1741
158	46 Orionis ε	+ 3 0421	+ 0 0035	− 0 002	− 2 682	+ 0 441	+ 0 01	1765
159	123 Tauri 3	+ 3 5822	+ 0 0055	0 000	− 2 665	+ 0 519	+ 0 05	1767
160		+ 2 0089	+ 0 0031		− 2 480	+ 0 292		
161		+ 2 0089	+ 0 0030		− 2 387	+ 0 292		
162	α Columbæ	+ 2 1706	+ 0 0027	+ 0 005	− 2 211	+ 0 316	+ 0 05	1802
163	2113 Taylor	+ 1 9264	+ 0 0031		− 2 174	+ 0 280		
164		+ 1 9573	+ 0 0030		− 2 036	+ 0 285		
165		+ 1 9515	+ 0 0030		− 1 891	+ 0 284		
166	1984 Lacaille	+ 1 9110	+ 0 0030		− 1 690	+ 0 284		
167	54 Orionis χ^1	+ 3 5641	+ 0 0084		− 1 201	+ 0 520		1876
168	2036 Lacaille	+ 1 9605	+ 0 0028		− 1 198	+ 0 286		
169	58 Orionis α Var 2	+ 3 2449	+ 0 0028	+ 0 001	− 1 070	+ 0 467	0·00	1883
170		+ 1 9504	+ 0 0027		− 0 912	+ 0 284		
171		+ 1 9687	+ 0 0026		− 0 643	+ 0 297		
172		+ 1 9053	+ 0 0026		− 0 590	+ 0 278		
173	2104 Lacaille	+ ~~1 2694~~	+ ~~0 0073~~		− 0 496	+ 0 199		
174	62 Orionis χ^4	+ 3 5623	+ 0 0022		− 0 369	+ 0 519		1989
175		+ 1 9521	+ 0 0025		− 0 340	+ 0 285		

+1 2696 +0 0030

145 —Proper Motions adopted from ' *Greenwich Catalogue*

162 —Proper Motions adopted from ' *Stone s Catalogue*

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*	°				
176	2301 Taylor	6 3	1	5	58	28 90	148	6	20 5	1	0 05
177		8 2	1	5	59	38 92	129	49	47 0	2	0 51
178	67 Orionis ν	5 0		5	59	44 99	75	13	7 5	12	0 09
179		8 8	2	6	3	37 31	129	58	11 0	2	0 14
180		7 4	2	6	4	20 20	128	2	33 6	2	0 12
181	7 Geminorum η Var 6	3 5		6	6	36 42	67	27	26 8	3	0 63
182		9 0	1	6	8	47 72	131	54	43 0	2	0 08
183	*	9 0		6	8	51 34	130	31	34 1	1	0 13
184	13 Geminorum μ	3 0		6	14	40 38	67	25	11 7	7	0 22
185		9 4	2	6	21	54 56	129	36	27 5	2	0 14
186	2524 Taylor	7 5	1	6	23	~~26 01~~ 25 41	131	3	1 3	1	0 08
187	24 Geminorum γ	2 3		6	29	47 81	73	29	14 0	12	0 14
188		9 0	2	6	31	24 39	140	0	9 3	2	0 05
189		9 0	2	6	33	51 92	130	54	14 3	2	0 09
190		7 7	1	6	34	28 58	130	27	51 0	1	0 15
191	51 Cephei (*Hev*)	5 3		6	35	8 54	2	45	16 3	8	0 10
192		8 9	2	6	36	11 08	130	20	57 4	2	0 12
193	31 Geminorum ξ	3 7		6	37	35 89	76	57	36 2	2	0 16
194	9 Can Maj α (*Sirius*)	1 0		6	39	6 56	106	3[illegible]	51 7	1	0 01
195		8 9	2	6	42	21 47	130	56	52 0	2	0 15
196		8 8	2	6	43	38 68	128	30	10 6	2	0 07
197	2724 Taylor	8 9	2	6	44	52 12	144	35	58 6	2	0 08
198	2500 Lacaille	7 8	1	6	46	57 71	130	23	14 8	1	0 16
199	2516 Lacaille	8 2	1	6	48	21 53	130	31	34 6	2	0 14
200		9 3	1	6	49	40 68	129	8	18 8	1	0 15
201	21 Canis Majoris ϵ	1 7		6	53	14 53	118	47	16 6	6	0 09
202		9 0	1	6	53	45 82	129	47	27 6	1	0 15
203	2805 Taylor	7 6	1	6	55	58 22	60	12	25 2	1	0 12
204	43 Gem 3² Var 1	4 0		6	55	58 86	69	13	56 7	4	0 31
205	23 Canis Majoris γ	4 5		6	57	33 63	105	26	0 6	7	0 14
206	R Geminorum Var 2	7 7	3	6	59	6 33	67	5	20 3	3	0 08
207		9 0	1	6	59	8 11	66	59	50 1	1	0 04
208		7 8	1	6	59	47 20	129	42	59 4	1	0 15
209	2851 Taylor	7 8	1	7	0	48 71	145	44	43 8	1	0 19
210	R Canis Minoris Var 1	8 4	3	7	1	10 40	79	45	46 5	3	0 11

181 —η Geminorum Var 6 —Period 229 days —Range 3rd to 4th magnitude
204 —3 Geminorum Var 1 —Period 10 16 days —Range 3 7 to 4 5 magnitude
206 —R Geminorum Var 2 —Period 371 days —Range 7th magnitude to invisibility
210 —R Canis Minoris Var 1 —Period 335 days —Range 7 5 to 11th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C	
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion		
		s	s	s					
176	2301 Taylor	+ 0 9235	+ 0 0030		− 0 132	+ 0 135		1954	
177		+ 1 9568	+ 0 0024		− 0 031	+ 0 285			
178	67 Orionis ν	+ 3 4248	+ 0 0017	+ 0 001	− 0 022	+ 0 500	+ 0 02	1958	
179		+ 1 9515	+ 0 0023		+ 0 317	+ 0 285			
180		+ 2 0261	+ 0 0023		+ 0 379	+ 0 296		–	
181	7 Gem η Var 6	+ 3 6267	+ 0 0007	− 0 007	+ 0 578	+ 0 529	+ 0 02	2002	
182		+ 1 8728	+ 0 0021		+ 0 769	+ 0 273			
183		+ 1 9300	+ 0 0021		+ 0 774	+ 0 281			
184	13 Geminorum μ	+ 3 6268	− 0 0003	+ 0 005	+ 1 288	+ 0 527	+ 0 14	2047	
185		+ 1 9707	+ 0 0018		+ 1 914	+ 0 285			
186	2524 Taylor	+ 1 9138	+ 0 0018		+ 2 047	+ 0 277			
187	24 Geminorum γ	+ 3 4650	− 0 0015	+ 0 001	+ 2 600	+ 0 500	+ 0 04	2163	
188		+ 1 4935	+ 0 0007		+ 2 740	+ 0 215			
189		+ 1 9264	+ 0 0015		+ 2 953	+ 0 277			
190		+ 1 9445	+ 0 0015		+ 3 006	+ ~~0 279~~			
191	51 Cephei (Hev)	+ 30 5365	− 1 8025	− 0 027	+ 3 063	+ 4 400	+ 0 08	2157	
192		+ 1 9503	+ 0 0014		+ 3 154	+ 0 280			
193	31 Geminorum ξ	+ 3 3776	− 0 0016	− 0 007	+ 3 275	+ 0 485	+ 0 22	2206	
194	9 Can Maj α	+ 2 6808	+ 0 0010	− 0 035	+ 3 405	+ 0 384	+ 1 24	2213	
195		+ 1 9317	+ 0 0013		+ 3 686	+ 0 275			
196		+ 2 0276	+ 0 0013		+ 3 796	+ 0 288			
197	2724 Taylor	+ 1 2267	− ~~0 0014~~		+ 3 901	+ 0 173			
198	2500 Lacaille	+ 1 9585	+ 0 0012		+ 4 081	+ 0 278			
199	2516 Lacaille	+ 1 9545	+ 0 0012		+ 4 201	+ 0 277			
200		+ 2 0095	+ 0 0013		+ 4 313	+ 0 284			
201	21 Can Maj ε	+ 2 3570	+ 0 0013	0 000	+ 4 617	+ 0 332	+ 0 02	2293	
202		+ 1 9890	+ 0 0012		+ 4 662	+ ~~0 280~~			
203	2805 Taylor	+ 3 5647	− 0 0050		+ 4 849	+ 0 502			
204	43 Gem ζ Var 1	+ 3 5641	− ~~0 0050~~	− ~~0 001~~	+ 4 850	+ 0 503	+ ~~0 01~~	2305	57
205	23 Can Maj γ	+ 2 7144	+ 0 0005	+ 0 002	+ 4 984	+ 0 381	+ 0 01	2319	
206	R Gem Var 2	+ 3 6184	− 0 0059		+ 5 115	+ 0 508			
207		+ 3 6209	− 0 0059		+ 5 118	+ 0 509			
208		+ 1 9990	+ 0 0011		+ 5 173	+ 0 280			
209	2851 Taylor	+ 1 1774	− 0 0038		+ 5 259	+ 0 164			
210	R Can Min Var 1	+ 3 3050	− 0 0031		+ 5 290	+ 0 463			

178 —191 —193 —Proper Motions adopted from "*Greenwich Catalogue*

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*	°	′	″		
211		9 0	1	7	4	55 62	130	42	26 1	1	0 20
212	2899 Taylor	8 3	1	7	5	45 64	130	8	42 2	1	0 10
213		9 0	1	7	5	49 92	129	23	7 9	1	0 16
214		7 3	1	7	6	36 63	129	2	39 0	1	0 15
215	2696 Lacaille	8 4	2	7	9	20 62	140	58	45 6	2	0 09
216	2940 Taylor	8 5	1	7	9	26 25	129	57	35 9	1	0 06
217	54 Geminorum λ	4 3		7	10	13 09	73	12	57 4	1	0 90
218		9 5	1	7	10	14 44	131	52	5 3	1	0 20
219	55 Geminorum δ	3 3		7	11	56 31	67	46	8 7	17	0 11
220		9 5	1	7	12	59 12	129	15	51 3	1	0 16
221		8 0	1	7	14	28 97	138	49	29 4	1	0 20
222		8 7	2	7	17	22 77	129	13	19 5	2	0 09
223		9 7	2	7	18	1 38	129	42	28 0	2	0 15
224	3043 Taylor	7 1	2	7	19	11 34	129	16	18 9	2	0 15
225	2807 Lacaille	8 0	1	7	19	31 07	142	15	14 6	2	0 09
226		9 0	1	7	19	33 48	123	7	52 1	1	0 21
227		7 0	1	7	21	32 00	131	50	19 2	1	0 20
228	S Canis Minoris Var 2	9 8	3	7	25	16 94	81	23	34 4	3	0 14
229	68 Geminorum	6 5	1	7	25	47 23	73	52	54 7	2	0 11
230	66 Gem α^2 (*Castor*)	1 7		7	25	51 25	57	48	53 8	12	0 15
4 — 231		9 0	1	7	26	~~2 73~~	142	5	45 3	1	0 05
232		9 2	1	7	26	46 17	123	7	15 0	1	0 21
233	3126 Taylor	7 5	1	7	29	32 74	143	15	35 0	1	0 06
234	10 Can Min α (*Procyon*)	1 0		7	32	7 72	84	25	37 3	15	0 16
235	2893 Lacaille	8 0	1	7	32	41 06	121	49	18 1	1	0 04
236	2910 Lacaille	8 5	1	7	33	16 04	143	52	47 6	1	0 05
237		8 5	1	7	35	27 60	141	19	34 5	1	0 05
238	78 Gem β (*Pollux*)	1 3		7	36	55 73	61	38	47 2	10	0 15
239		7 5	2	7	37	44 51	128	52	45 3	2	0 06
240	81 Geminorum *g*	5 0		7	38	11 35	71	9	33 0	2	0 12
241	2971 Lacaille	7 5	1	7	40	16 99	143	54	47 6	1	0 05
242	T Geminorum Var 4	8 3	2	7	41	4 50	65	55	40 7	2	0 09
243		8 0	1	7	41	30 83	144	18	31 9	1	0 05
244	3013 Lacaille	7 0	1	7	43	27 42	142	0	32 0	1	0 06
245	49 R P L	6 5		7	43	39 66	5	33	32 7	1	0 09

228 —S Canis Minoris Var 2 —Period 332 days —Range 7 5 magnitude to invisibility
288 — 242 —T Geminorum Var 4 —Period [illegible] days —Range 8 5 magnitude to invisibility
245 —1359 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
211		+ 1 9676	+ 0 0009		+ 5 606	+ 0 274		
212	2899 Taylor	+ 1 9905	+ 0 0009		+ 5 676	+ 0 277		
213		+ 2 0193	+ 0 0010		+ 5 682	+ 0 280		
214		+ 2 0332	+ 0 0010		+ 5 748	+ 0 282		
215	2696 Lacaille	+ 1 4971	− 0 0013		+ 5 976	+ 0 205		
216	2940 Taylor	+ 2 0028	+ 0 0010		+ 5 984	+ 0 276		
217	54 Geminorum λ	+ 3 4566	− 0 0055		+ 6 049	+ ~~0 602~~		2398 — + 0 478
218		+ 1 9296	+ 0 0007		+ 6 050	+ 0 265		
219	55 Geminorum δ	+ 3 5918	− 0 0072	0 000	+ 6 193	+ 0 495	+ 0 02	2410
220		+ 2 0341	+ 0 0009		+ 6 280	+ 0 279		
221		+ 1 6234	− 0 0008		+ 6 403	+ 0 221		
222		+ 2 0424	+ 0 0009		+ 6 644	+ 0 278		
223		+ 2 0255	+ 0 0010		+ 6 697	+ 0 276		
224	3043 Taylor	+ 2 0435	+ 0 0009		+ 6 792	+ 0 277		
225	2807 Lacaille	+ 1 1480	− 0 0023		+ 6 819	+ 0 196		
226		+ 2 2515	+ 0 0013		+ 6 823	+ 0 304		
227		+ 1 9500	+ 0 0006		+ 6 985	+ 0 264		
228	S Can Min Var 2	+ 3 2606	− 0 0044		+ 7 293	+ 0 440		
229	68 Geminorum	+ 3 4817	− 0 0066	− 0 004	+ 7 333	+ 0 463	0 00	2486
230	66 Geminorum a^2	+ 3 8551	− 0 0133	− 0 013	+ 7 339	+ 0 519	+ 0 08	2485
231		+ 1 4744	− 0 0024		+ 7 354	+ 0 197		
232		+ 2 2616	+ 0 0011		+ 7 413	+ 0 303		
233	3126 Taylor	+ 1 4160	− 0 0032		+ 7 638	+ 0 188		2507
234	10 Can Min α	+ 3 1920	− 0 0041	− 0 048	+ 7 846	+ 0 423	+ 1 08	2522
235	2893 Lacaille	+ 2 3094	+ 0 0012		+ 7 891	+ 0 307		
236	2910 Lacaille	+ 1 3896	− 0 0037		+ 7 938	+ 0 183		
237		+ 1 3648	− 0 0041		+ 8 114	+ 0 179		
238	78 Geminorum β	+ 3 7299	− 0 0128	− 0 049	+ 8 231	+ 0 491	+ 0 06	2555
239		+ 2 0906	+ 0 0010		+ 8 297	+ 0 274		
240	81 Geminorum g	+ 3 4871	− 0 0086	− 0 008	+ 8 332	+ 0 459	+ 0 05	2558
241	2971 Lacaille	+ 1 4105	− 0 0038		+ 8 499	+ 0 182		
242	T Gem Var 4	+ 3 6122	− 0 0110		+ 8 561	+ 0 472		
243		+ 1 3904	− 0 0041		+ 8 596	+ 0 179		
244	3013 Lacaille	+ 1 5317	− 0 0026		+ 8 749	+ 0 197		
245	49 R P L	+ 15 4282	− 1 2094		+ 8 765	+ 2 020		2585

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
246		8 0	1	7	45	4 57	129	21	42 4	2	0 08
247	1791 Brisbane	8 0	1	7	46	17 14	144	24	30 2	1	0 05
[2996] 248	3293 Taylor	8 0	1	7	46	29 ~~1~~96	144	43	55 7	1	0 05
249		9 1	1	7	48	56 74	130	25	52 8	1	0 15
250	1 Cancri	6 0		7	49	12 66	73	50	48 4	1	0 09
251		8 5	2	7	49	49 19	129	17	12 9	2	0 06
252		9 0		7	50	2 96	129	38	16 1	1	0 13
253	3339 Taylor	8 0	1	7	51	48 84	144	16	45 2	1	0 05
254		9 0	1	7	52	52 87	144	41	30 7	1	0 05
255	6 Cancri	6 0	1	7	55	5 99	61	40	30 0	9	0 16
256	3373 Taylor	8 0	1	7	55	12 34	144	11	41 1	1	0 06
257		8 0	1	7	55	17 98	128	30	1 7	2	0 08
258		9 5	1	7	56	29 34	129	21	9 1	1	0 06
259	15 Argus ρ	3 0		8	1	42 66	113	54	41 6	6	0 15
260		9 7	1	8	1	59 94	113	46	37 3	1	0 20
261		9 2	2	8	2	9 72	128	39	16 3	2	0 10
262	16 Cancri ζ	5 5		8	4	20 91	71	56	29 8	1	0 01
263		8 3	1	8	5	17 17	130	45	12 2	1	0 13
264	R Cancri Var 1	7 7	3	8	9	0 61	77	51	21 7	3	0 09
265		9 3	2	8	9	20 90	74	15	51 8	2	0 24
266		9 3	1	8	9	51 95	74	16	2 7	1	0 21
267	16224 Lalande	7 0	1	8	10	30 18	73	54	0 8	1	0 21
268		8 3	1	8	12	15 14	128	43	30 2	1	0 12
269		8 8	1	8	12	48 23	128	40	43 7	1	0 11
270		9 3	1	8	12	53 61	131	17	0 3	1	0 13
271		9 5	1	8	12	55 26	130	45	19 7	1	0 13
272		9 5	1	8	13	40 21	133	17	7 4	1	0 20
273	20 Cancri d	6 3		8	15	30 83	71	13	50 9	1	0 01
274		9 0	1	8	17	21 94	141	15	41 3	1	0 04
275	3620 Taylor	8 0	1	8	23	8 67	130	47	35 5	1	0 13
276		8 8	2	8	23	30 08	128	38	23 8	2	0 11
277	31 Cancri θ	5 3		8	23	47 14	71	26	44 0	1	0 17
278	33 Cancri η	5 7		8	24	46 94	69	5	46 4	8	0 17
279	3651 Taylor	7 7	1	8	25	37 47	130	3	8 0	1	0 13
280		9 0	1	8	26	23 33	130	30	18 1	1	0 08

246 —R Cancri Var 1 —Period 354 days —Range 6th to 12th magnitude
265—266—267 —Comparison stars for Ariadne

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
246		+ 2 0368	+ 0 0010		+ 8 876	+ 0 269		
247	1791 Brisbane	+ 1 4012	− 0 0043		+ 8 971	+ 0 179		
248	3293 Taylor	+ 1 3820	− 0 0045		+ 9 987	+ 0 176		
249		+ 2 0593	+ 0 0010		+ 9 178	+ 0 263		
250	1 Cancri	+ 3 4162	− 0 0084		+ 9 199	+ 0 439		2639
251		+ 2 1015	+ 0 0011		+ 9 247	+ 0 268		
252		+ 2 0896	+ 0 0011		+ 9 264	+ 0 266		
253	3339 Taylor	+ 1 4297	− 0 0041		+ 9 401	+ 0 180		
254		+ 1 4097	− 0 0053		+ 9 484	+ 0 177		
255	6 Cancri	+ 3 6997	− 0 0148	− 0 005	+ 9 654	+ 0 468	+ 0 07	2672
256	3373 Taylor	+ 1 4479	− 0 0041		+ 9 662	+ 0 181		
257		+ 2 1404	+ 0 0013		+ 9 669	+ 0 270		
258		+ 2 1143	+ 0 0013		+ 9 761	+ 0 265		
259	15 Argus ρ	+ 2 5608	+ 0 0009	− 0 007	+ 10 157	+ 0 318	− 0 06	2728
260		+ 2 5645	+ 0 0009		+ 10 178	+ 0 318		
261		+ 2 1510	+ 0 0015		+ 10 191	+ 0 266		
262	16 Cancri 3	+ 3 4454	+ 0 0103	+ 0 004	+ 10 355	+ 0 426	+ 0 11	2744
263		+ 2 0877	+ 0 0013		+ 10 426	+ 0 256		
264	R Cancri Var 1	+ 3 3154	− 0 0081		+ 10 703	+ 0 406		
265		+ 3 3904	− 0 0095		+ 10 728	+ 0 413		
266		+ 3 3898	− 0 0096		+ 10 766	+ 0 412		
267	16224 Lalande	+ 3 3971	− 0 0097		+ 10 813	+ 0 412		
268		+ 2 1735	+ 0 0018		+ 10 941	+ 0 261		
269		+ 2 1763	+ 0 0018		+ 10 976	+ 0 261		
270		+ 2 0900	+ 0 0015		+ 10 988	+ 0 250		
271		+ 2 1083	+ 0 0011		+ 10 990	+ 0 252		
272		+ 2 0209	+ 0 0013		+ 11 045	+ 0 241		
273	20 Cancri d^1	+ 3 4493	+ 0 0114		+ 11 179	+ 0 413		2799
274		+ 1 6961	− 0 0014		+ 11 313	+ 0 199		
275	3620 Taylor	+ 2 1360	+ 0 0020		+ 11 728	+ 0 248		
276		+ 2 2059	+ 0 0023		+ 11 752	+ 0 256		
277	31 Cancri θ	+ 3 4354	− 0 0118	− 0 006	+ 11 773	+ 0 401	+ 0 06	2853
278	33 Cancri η	+ 3 4841	− 0 0131	− 0 005	+ 11 844	+ 0 403	+ 0 06	2862
279	3651 Taylor	+ 2 1674	+ 0 0022		+ 11 903	+ 0 249		
280		+ 2 1551	+ 0 0022		+ 11 957	+ 0 247		

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
281		8 4	2	8	30	11 71	128	46	55 5	2	0 12
282	3710 Taylor	8 0	1	8	31	22 50	141	20	51 9	1	0 19
283		8 7	2	8	33	7 27	129	23	15 0	2	0 23
284	S Cancri Var 2	8 5	4	8	36	6 39	70	28	32 6	4	0 13
285	3767 Taylor	8 5	1	8	36	18 59	149	50	2 8	1	0 17
286	47 Cancri δ	4 3		8	36	53 81	71	20	42 0	1	0 09
287		8 9	1	8	73	48 60	136	5	19 7	1	0 18
288	11 Hydræ ε	3 5		8	39	31 08	83	4	52 4	12	0 20
289		8 3	1	8	40	27 06	129	15	20 5	1	0 23
290	60 B P L	6 5		8	46	8 72	5	16	42 0	6	0 36
291	S Hydræ Var 3	10 2	3	8	46	25 20	86	24	59 2	3	0 23
292		9 6	1	8	47	18 74	69	36	57 0	1	0 20
293	3886 Taylor	8 0	1	8	48	12 00	136	52	39 3	1	0 18
294	T Cancri Var 3	9 4	3	8	48	50 44	69	37	45 1	3	0 19
295	T Hydræ Var 4	9 7	1	8	48	59 93	98	37	15 5	1	0 04
296		7 5	1	8	49	11 22	132	54	6 3	1	0 20
297	65 Cancri α	4 7		8	50	59 61	77	36	51 7	3	0 12
298		9 7	1	8	51	52 86	137	24	27 1	1	0 20
299		8 8	2	8	54	18 15	130	34	38 1	2	0 19
300		9 0	1	8	54	55 91	142	48	42 8	1	0 27
301	3941 Taylor	8 8	1	8	54	57 63	144	6	8 7	1	0 27
302		9 3	1	8	56	35 64	146	45	47 0	1	0 27
303		9 6	1	8	56	40 93	129	17	57 6	1	0 22
304		9 0	1	8	59	4 56	145	37	55 2	1	0 04
305	76 Cancri κ	5 5		9	0	19 65	78	46	57 7	2	0 09
306		8 0	1	9	1	2 20	150	1	16 2	1	0 27
307		7 7	2	9	1	47 83	128	56	55 1	2	0 20
308		10 5	1	9	2	12 49	71	26	18 8	1	0 23
309		9 3	1	9	4	21 47	130	29	24 9	2	0 15
310	3713 Lacaille	7 8	1	9	4	32 87	143	48	57 5	1	0 28
311		8 4	?	9	6	25 16	142	29	13 1	2	0 08
312		8 9	1	9	6	28 79	138	41	16 6	1	0 17
313		9 0	1	9	8	12 53	148	14	1 3	1	0 17
314		10 3	2	9	9	21 57	73	52	24 7	2	0 19
315	83 Cancri	6 7		~~8~~	11	19 87	71	42	58 2	13	0 19

284 —S Cancri Var 2 —Period 9 48 days —Range 8th to 10 5 magnitude
290 —1286 Carrington
292 —S Hydræ Var 3 —Period 256 days —Range 8th to 13th magnitude
294 —T Cancri Var 3 —Period 484 days —Range 8th to 10 5 magnitude
295 —T Hydræ Var 4 —Period 289 days —Range, 7th to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
281		+ 2 2203	+ 0 0026		+ 12 222	+ 0 252		
282	3710 Taylor	+ 1 7519	− 0 0006		+ 12 304	+ 0 197		
283		+ 2 2103	+ 0 0026		+ 12 421	+ 0 248		
284	S Cancri Var 2	+ 3 4404	− 0 0130		+ 12 628	+ 0 385		
285	3767 Taylor	+ 1 2862	− 0 0089		+ 12 642	+ 0 138		
286	47 Cancri δ	+ 3 1217	− 0 0125	− 0 002	+ 12 682	+ 0 382	+ 0 24	2953
287		+ 1 9996	+ 0 0019		+ 12 743	+ 0 220		
288	11 Hydræ ε	+ 3 1965	− 0 0071	− 0 013	+ 12 859	+ 0 351	+ 0 04	2971
289		+ 2 2364	+ 0 0031		+ 12 921	+ 0 244		
290	60 R P L	+ 13 9054	− 1 7357		+ 13 298	+ 1 512		
291	S Hydræ Var 3	+ 3 1347	− 0 0059		+ 13 316	+ 0 336		
292		+ 3 4423	− 0 0140		+ 13 374	+ 0 368		
293	3886 Taylor	+ 2 0120	+ 0 0025		+ 13 432	+ 0 212		
294	T Cancri Var 3	+ 3 4398	− 0 0141		+ 13 475	+ 0 366		
295	Γ Hydræ Var 4	+ 2 9220	− 0 0018		+ 13 485	+ 0 309		
296		+ 2 1530	+ 0 0033		+ 13 496	+ 0 226		
297	65 Cancri α	+ 3 2877	− 0 0098	0 000	+ 13 613	+ 0 346	+ 0 04	3055
298		+ 2 0079	+ 0 0027		+ 13 670	+ 0 208		
299		+ 2 2426	+ 0 0039		+ 13 824	+ 0 231		
300		+ 1 7987	+ 0 0005		+ 13 864	+ 0 184		
301	3941 Taylor	+ 1 7375	− 0 0003		+ 13 866	+ 0 177		
302		+ 1 6080	− 0 0026		+ 13 970	+ 0 162		
303		+ 2 2872	+ 0 0040		+ 13 974	+ 0 233		
304		+ 1 6840	− 0 0010		+ 14 124	+ 0 168		
305	76 Cancri κ	+ 3 2593	− 0 0094	− 0 002	+ 14 201	+ 0 335	0 00	3111
306		+ 1 4405	− 0 0062		+ 14 245	+ 0 142		
307		+ 2 3140	+ 0 0044		+ 14 292	+ 0 231		
308		+ 3 3865	+ 0 0133		+ 14 317	+ 0 340		
309		+ 2 2804	+ 0 0047		+ 14 448	+ 0 225		
310	3713 Lacaille	+ 1 8055	+ 0 0010		+ 14 460	+ 0 176		
311		+ 1 8755	+ 0 0022		+ 14 573	+ 0 182		
312		+ 2 0272	+ 0 0037		+ 14 576	+ 0 197		
313		+ 1 6009	− 0 0025		+ 14 680	+ 0 153		
314		+ 3 3335	+ 0 0019		+ 14 748	+ 0 324		
315	83 Cancri	+ 3 3685	− 0 0134	− 0 012	+ 14 864	+ 0 323	+ 0 16	3171

Mean Positions of Stars for 1863 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
				h	*m*	*s*						
316		8 5		9	11	46 21	130	44	53 2	1	0 15	
317		8 9	3	9	14	32 62	24	50	14 1	3	0 12	
318		9 2	1	9	15	13 69	143	~~46~~	26 1	1	0 28	48
319		9 2	2	9	15	49 94	25	4	11 1	2	0 13	
320		9 0	1	9	16	3 99	140	7	19 9	1	0 17	
321		9 5	1	9	16	15 59	139	0	47 4	1	0 17	
322	9881 O A N	9 3	1	9	17	32 56	25	3	29 2	1	0 20	
323	30 Hydræ *α* Var 1	2 3		9	20	51 25	98	4	0 1	13	0 23	
324	2 Leonis *ω*	6 0		9	21	7 29	80	10	56 3	1	0 17	
325	3853 Lacaille	8 0	1	9	22	29 81	131	59	2 0	1	0 21	
326		9 1	3	9	24	30 42	130	25	54 0	3	0 13	
327	6 Leonis *h*	6 0	1	9	24	36 90	79	40	54 5	1	0 32	
328	3886 Lacaille	8 0	1	9	24	41 23	141	49	33 3	1	0 17	
329	3887 Lacaille	8 0	1	9	24	53 13	140	0	16 9	1	0 17	
330		9 0	1	9	26	53 60	144	57	51 3	1	0 18	
331		8 8	1	9	28	52 41	128	46	39 2	1	0 22	
332		8 0	1	9	28	58 85	128	49	16 2	1	0 23	
333	10 Leonis	5 5		9	29	58 49	82	33	6 7	2	0 09	
334	4259 Taylor	5 0	1	9	31	55 33	138	44	31 9	1	0 18	
335		8 7	1	9	32	25 09	129	53	36 6	1	0 23	
336	69 R P L	8 0		9	32	32 26	2	46	30 6	1	0 81	
337		8 2	1	9	32	51 36	129	47	14 2	1	0 15	
338	14 Leonis *o*	4 0		9	33	50 25	79	29	10 3	4	0 15	
339		9 0		9	34	41 56	130	34	22 9	1	0 15	
340	4280 Taylor	8 0	1	9	34	42 40	142	19	28 7	1	0 17	
341	17 Leonis *ε*	3 0		9	38	4 16	65	35	49 1	12	0 22	
342	R Leonis Var 1	8 6	4	9	40	11 14	77	56	16 3	5	0 20	
343		8 0	1	9	42	39 64	130	47	31 0	1	0 15	
344		8 9	1	9	43	32 16	143	45	37 4	1	0 17	
345		8 0	1	9	44	3 77	147	1	19 8	1	0 19	
346		9 3	1	9	45	53 44	129	2	34 2	1	0 23	
347	70 R P L	6 5		9	46	7 38	5	25	32 0	6	0 22	
348	4402 Taylor	7 4	2	9	49	50 89	129	47	13 5	2	0 20	
349	29 Leonis *π*	5 0		9	52	58 29	81	18	0 3	13	0 23	
350		8 0	1	9	55	49 87	147	23	57 7	1	0 19	

317—319—322 —Comparison stars for Comet 2 of 1861
323 —*α* Hydræ Var 1 —Supposed to vary irregularly from 2 0 to 2 5 magnitude
336 —1418 Carrington
342 —R Leonis Var 1 —Period 312 days —Range, 5th to 10th magnitude
347 —1451 Carrington.

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
316		+ 2 3003	+ 0 0052		+ 14 890	+ 0 219		
317		+ 4 9810	− 0 1139		+ 15 052	+ 0 473		
318		+ 1 8723	+ 0 0027		+ 15 092	+ 0 174		
319		+ 4 9487	− 0 1123		+ 15 126	+ 0 467		
320		+ 2 0225	+ 0 0045		+ 15 139	+ 0 186		
321		+ 2 0638	+ 0 0048		+ 15 151	+ 0 190		
322	9881 O A N	+ 4 9336	− 0 1164		+ 15 224	+ 0 461		
323	30 Hydræ α Var 1	+ 2 9507	− 0 0013	− 0 004	+ 15 412	+ 0 268	− 0 03	3223
324	2 Leonis ω	+ 3 2199	− 0 0087		+ 15 426	+ 0 293		3227
325	3853 Lacaille	+ 2 3088	+ 0 0063		+ 15 502	+ 0 207		
326		+ 2 3571	+ 0 0064		+ 15 615	+ 0 209		
327	6 Leonis h	+ 3 2248	− 0 0092	− 0 002	+ 15 619	+ 0 288	− 0 02	3251
328	3886 Lacaille	+ 2 0057	+ 0 0052		+ 15 624	+ 0 176		
329	3887 Lacaille	+ 2 0739	+ 0 0057		+ 15 635	+ 0 182		
330		+ 1 8906	+ 0 0038		+ 15 743	+ 0 164		
331		+ 2 4141	+ 0 0067		+ 15 850	+ 0 209		
332		+ 2 4134	+ 0 0068		+ 15 856	+ 0 208		
333	10 Leonis	+ 3 1785	− 0 0077		+ 15 909	+ 0 276		3286
334	4259 Taylor	+ 3 1544	+ 0 0063		+ 16 012	+ 0 182		3300
335		+ 2 4011	+ 0 0072		+ 16 039	+ 0 203		
336	69 R P L	+ 19 6194	− 5 8156		+ 16 045	+ 1 710		
337		+ 2 4053	+ 0 0072		+ 16 062	+ 0 203		
338	14 Leonis o	+ 3 2197	− 0 0093	− 0 013	+ 16 113	+ 0 272	+ 0 04	3312
339		+ 2 3939	+ 0 0075		+ 16 158	+ 0 200		
340	4280 Taylor	+ 2 0465	+ 0 0065		+ 16 158	+ 0 170		
341	17 Leonis ε	+ 3 4241	− 0 0180	− 0 004	+ 16 331	+ 0 282	+ 0 02	3331
342	R Leonis Var 1	+ 3 2357	− 0 0101		+ 16 438	+ 0 263		3345
343		+ 2 4213	+ 0 0084		+ 16 560	+ 0 192		
344		+ 2 0489	+ 0 0075		+ 16 604	+ 0 160		
345		+ 1 9203	+ 0 0060		+ 16 630	+ 0 150		
346		+ 2 4732	+ 0 0086		+ 16 718	+ 0 192		
347	70 R P L	+ 10 8353	− 1 5957		+ 16 729	+ 0 864		
348	4402 Taylor	+ 2 4731	+ 0 0091		+ 16 907	+ 0 187		
349	29 Leonis π	+ 3 1797	− 0 0081	− 0 003	+ 17 053	+ 0 236	+ 0 03	3415
350		+ 1 9940	+ 0 0086		+ 17 183	+ 0 143		

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*	°	′	″		
351		8 0	1	9	56	24 14	144	3	33 7	1	0 20
352	4476 Taylor	8 9	1	9	57	~~48 75~~ 47 24	145	35	45 6	1	0 17
353	31 Leonis A	5 0		10	0	37 82	79	19	58 0	2	0 17
354	32 Leonis α (*Regulus*)	1 3		10	1	4 34	77	21	53 2	20	0 24
355	4538 Taylor	7 0		10	6	6 78	129	19	7 2	1	0 23
356		9 0	1	10	8	59 19	139	51	23 4	1	0 21
357	72 R P L	6 0		10	9	10 79	5	3	20 2	4	0 50
358	4577 Taylor	9 0	1	10	9	45 09	128	36	39 0	2	0 21
359	41 Leonis γ^1	2 0		10	12	24 85	69	28	1 5	14	0 21
360		9 0	1	10	14	36 11	150	25	19 3	1	0 17
361	43 Leonis	6 5		10	15	50 04	82	45	46 6	2	0 10
362		9 0	1	10	16	9 40	129	15	55 9	1	0 23
363	44 Leonis	6 0		10	18	1 87	80	31	13 6	1	0 25
364		9 7	1	10	18	43 26	146	8	10 2	1	0 10
365		8 9	1	10	21	50 24	146	54	34 8	1	0 17
366	47 Leonis ρ	4 3		10	25	35 67	79	59	22 8	12	0 23
367		9 5	1	10	29	10 39	147	~~53~~ 54	~~17 9~~ 18 1	1	0 10
368	4769 Taylor	6 0	1	10	30	20 20	146	50	58 0	1	0 17
369	R Ursæ Majoris Var 1	7 0	5	10	34	54 01	20	30	25 3	5	0 22
370		9 5	1	10	35	19 32	137	19	15 0	1	0 09
371		8 0	1	10	38	44 67	144	50	1 4	1	0 18
372		9 0	1	10	41	22 73	146	22	52 8	1	0 10
373	53 Leonis *l*	6 0		10	42	3 21	78	43	51 1	11	0 20
374		9 0	1	10	42	34 28	141	4	7 1	1	0 18
375		8 9	1	10	43	50 46	137	2	29 7	1	0 19
376		7 8	1	10	46	0 31	141	39	32 0	1	0 20
377		9 0	1	10	47	50 58	150	5	12 9	1	0 17
378		9 0	1	10	47	56 36	129	28	53 1	1	0 21
379	4945 Taylor	7 0	1	10	48	53 30	144	53	22 0	1	0 18
380		8 0	1	10	50	13 69	144	30	10 9	1	0 20
381	4955 Taylor	7 0	1	10	50	38 19	147	19	17 2	1	0 19
382	4969 Taylor	9 0	1	10	52	16 75	143	35	55 0	1	0 10
383		8 9	1	10	52	50 29	139	32	28 7	1	0 19
384	59 Leonis *c*	5 5		10	53	38 56	83	9	48 8	2	0 17
385	61 Leonis p^1	5 5		10	54	50 53	91	44	52 2	2	0 32

357 —1620 Groombridge
369 —R Ursæ Majoris Var 1—Period 303 days—Range, 6th to 13th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
351		+ 2 1250	+ 0 0102		+ 17 209	+ 0 152		
352	4476 Taylor	+ 2 0798	+ 0 0100		+ 17 272	+ 0 147		
353	31 Leonis A	+ 3 1974	− 0 0091	− 0 009	+ 17 396	+ 0 225	+ 0 05	3457
354	32 Leonis α	+ 3 2206	− 0 0102	− 0 019	+ 17 415	+ 0 225	− 0 01	3459
355	4538 Taylor	+ 2 5502	+ 0 0109		+ 17 630	+ 0 169		
356		+ 2 3338	+ 0 0131		+ 17 748	+ 0 150		
357	72 R P L	+ 10 0984	− 1 6698	− 0 079	+ 17 756	+ 0 677	+ 0 05	3495
358	4577 Taylor	+ 2 5781	+ 0 0112		+ 17 779	+ 0 166		
359	41 Leonis γ^1	+ 3 2985	− 0 0147	+ 0 019	+ 17 886	+ 0 208	+ 0 15	3523
360		+ 2 0266	+ 0 0122		+ 17 972	+ 0 123		
361	43 Leonis	+ 3 1466	− 0 0068		+ 18 019	+ 0 194		3544
362		+ 2 5936	+ 0 0121		+ 18 031	+ 0 158		
363	44 Leonis	+ 3 1682	− 0 0079		+ 18 103	+ 0 191		3561
364		+ 2 2200	+ 0 0152		+ 18 128	+ 0 131		
365		+ 2 2199	+ 0 0160		+ 18 243	+ 0 126		
366	47 Leonis ρ	+ 3 1664	− 0 0079	0 000	+ 18 378	+ 0 176	+ 0 03	3609
367		+ 2 2461	+ 0 0181		+ 18 501	+ 0 119		
368	4769 Taylor	+ 2 2915	+ 0 0184		+ 18 540	+ 0 120		3635
369	R Urs Maj Var 1	+ 4 8691	− 0 1402		+ 18 689	+ 0 228		
370		+ 2 5484	+ 0 0177		+ 18 701	+ 0 126		
371		+ 2 4132	+ 0 0207		+ 18 808	+ 0 114		
372		+ 2 3956	+ 0 0218		+ 18 887	+ 0 109		
373	53 Leonis *l*	+ 3 1609	− 0 0080	− 0 003	+ 18 907	+ 0 145	+ 0 02	3708
374		+ 2 5235	+ 0 0205		+ 18 922	+ 0 114		
375		+ 2 6036	+ 0 0198		+ 18 958	+ 0 116		
376		+ 2 5356	+ 0 0215		+ 19 019	+ 0 109		
377		+ 2 3521	+ 0 0346		+ 19 070	+ 0 098		
378		+ 2 7315	+ 0 0164		+ 19 072	+ 0 115		
379	4945 Taylor	+ 2 4914	+ 0 0236		+ 19 098	+ 0 103		
380		+ 2 5104	+ 0 0238		+ 19 133	+ 0 102		
381	4955 Taylor	+ 2 4508	+ 0 0250		+ 19 144	+ 0 097		
382	4969 Taylor	+ 2 5440	+ 0 0239		+ 19 186	+ 0 100		
383		+ 2 6191	+ 0 0222		+ 19 200	+ 0 102		
384	59 Leonis *c*	+ ~~3 5293~~	− ~~0 0056~~	− 0 005	+ 19 220	+ ~~0 139~~	+ 0 06	3769
385	61 Leonis p^1	+ 3 0606	− 0 0007		+ 19 250	+ 0 117		3775

+ 3 1149 − 0 0052

+

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
386		9 0	1	10	56	59 40	145	35	22 4	1	0 18
387	4076 Lacaille	8 2	1	10	57	46 14	129	34	13 0	1	0 22
388	63 Leonis χ	5 0		10	57	56 90	81	55	26 5	8	0 29
389		9 5	1	10	58	9 40	140	58	54 6	1	0 18
390	65 Leonis p^3	5 5		10	59	55 01	87	18	6 0	1	0 17
391		9 5	1	11	0	34 00	147	13	24 8	1	0 19
392	5092 Taylor	8 7	1	11	5	16 22	143	48	48 3	1	0 27
393	68 Leonis δ	2 5		11	6	49 04	68	43	35 1	11	0 32
394		8 8	1	11	7	4 51	145	39	55 0	1	0 27
395		8 4	2	11	8	31 33	150	50	31 6	2	0 21
396		10 0	1	11	9	26 23	145	54	54 6	1	0 18
397		9 0	1	11	9	36 60	147	10	54 2	1	0 19
398	74 Leonis ϕ	4 7		11	9	41 76	92	54	12 3	4	0 19
399		10 0	1	11	10	29 26	141	8	15 3	1	0 18
400		9 0		11	11	5 42	127	38	2 2	1	0 21
401	12 Crateris δ	3 3		11	12	29 59	104	2	15 0	13	0 33
402		7 8	1	11	12	45 72	129	31	48 6	1	0 28
403		8 2	2	11	19	22 11	129	30	37 5	2	0 23
404		9 5	1	11	21	39 16	128	22	27 3	2	0 29
405		9 0	1	11	22	45 50	145	53	23 6	1	0 18
406		9 2	1	11	23	8 90	142	52	15 8	1	0 28
407	87 Leonis e	5 5		11	23	18 71	92	14	53 9	3	0 15
408		9 8	3	11	23	18 84	23	20	52 0	3	0 23
409		10 0	2	11	26	36 13	23	17	16 5	2	0 23
410		8 9	1	11	29	48 26	149	15	22 2	1	0 17
411	91 Leonis υ	4 7		11	29	56 07	90	4	4 1	13	0 31
412		8 0	1	11	32	6 37	144	14	11 0	1	0 20
413		8 4	1	11	33	54 38	127	48	55 5	1	0 24
414		7 9	1	11	34	17 41	144	20	21 7	1	0 27
415		7 9	1	11	36	0 31	139	39	56 1	1	0 20
416	5384 Taylor	6 0	1	11	36	59 90	151	43	47 3	1	0 10
417		9 3	1	11	38	6 44	149	38	28 8	1	0 27
418		9 2	2	11	38	39 07	129	33	42 1	2	0 26
419		9 2	1	11	41	5 95	126	30	4 9	1	0 24
420		8 3	2	11	41	9 28	129	31	44 8	2	0 23

408—409 —Comparison stars for Comet 2 of 1861

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
386		+ 2 5421	+ 0 0263		+ 19 302	+ 0 092		
387	4076 Lacaille	+ 2 7757	+ 0 0179		+ 19 320	+ 0 100		
388	63 Leonis χ	+ 3 1227	− 0 0056	− 0 024	+ 19 325	+ 0 112	+ 0 08	3788
389		+ 2 6321	+ 0 0242		+ 19 329	+ 0 094		
390	65 Leonis p^3	+ 3 0884	− 0 0028		+ 19 370	+ 0 109		3798
391		+ 2 5396	+ 0 0282		+ 19 384	+ 0 087		
392	5092 Taylor	+ 2 6397	+ 0 0276		+ 19 486	+ 0 083		
393	68 Leonis δ	+ 3 1917	− 0 0132	+ 0 011	+ 19 518	+ 0 098	+ 0 14	3834
394		+ 2 6240	+ 0 0294		+ 19 523	+ 0 079		
395		+ 2 5383	+ 0 0441		+ 19 551	+ 0 074		
396		+ 2 6397	+ 0 0304		+ 19 569	+ 0 076		
397		+ 2 6199	+ 0 0333		+ 19 572	+ 0 075		
398	74 Leonis ϕ	+ 3 0573	+ 0 0006	− 0 009	+ 19 574	+ 0 089	+ 0 04	3848
399		+ 2 7164	+ 0 0273		+ 19 589	+ 0 077		
400		+ 2 8537	+ 0 0186		+ 19 601	+ 0 080		
401	12 Crateris δ	+ 3 0031	+ 0 0064	− 0 009	+ 19 626	+ 0 081	− 0 18	3859
402		+ 2 8463	+ 0 0200		+ 19 630	+ 0 077		
403		+ 2 8776	+ 0 0209		+ 19 741	+ 0 065		
404		+ 2 8957	+ 0 0205		+ 19 775	+ 0 061		
405		+ 2 7527	+ 0 0344		+ 19 790	+ 0 056		
406		+ 2 7893	+ 0 0318		+ 19 797	+ 0 056		
407	87 Leonis c	+ 3 0637	+ 0 0011	− 0 001	+ 19 799	+ 0 062	+ 0 03	3916
408		+ 3 5657	− 0 0905		+ 19 799	+ 0 074		
— 0 0889 — 409		+ 3 5231	− ~~0 0923~~		+ 19 843	+ 0 065		
410		+ 2 7768	+ 0 0406		+ 19 881	+ 0 044		
411	91 Leonis υ	+ 3 0713	+ 0 0003	− 0 003	+ 19 883	+ 0 049	− 0 08	3946
412		+ 2 8467	+ 0 0356		+ 19 907	+ 0 041		
413		+ 2 9541	+ 0 0219		+ 19 925	+ 0 040		
414		+ 2 8634	+ 0 0364		+ 19 929	+ 0 037		
415		+ 2 9074	+ 0 0320		+ 19 945	+ 0 035		
416	5384 Taylor	+ 2 8230	+ 0 0470		+ 19 954	+ 0 032		3976
417		+ 2 8543	+ 0 0444		+ 19 964	+ 0 030		
418		+ 2 9693	+ 0 0237		+ 19 968	+ 0 031		
419		+ 2 9905	+ 0 0218		+ 19 987	+ 0 027		
420		+ 2 9814	+ 0 0240		+ 19 987	+ 0 027		

Mean Positions of Stars for 1863 *January* 1*st*,

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	*m*	*s*					
	421	94 Leonis β	2 0		11	42	4 17	74	39	45 0	6	0 35
	422		9 3	1	11	43	5 22	143	44	54 7	1	0 27
	423	5427 Taylor	6 0	3	11	44	2 03	94	34	18 1	3	0 25
	424		8 2	1	11	44	41 15	129	2	19 6	1	0 24
	425	5433 Taylor	7 8	2	11	44	48 41	129	32	40 8	2	0 23
	426		9 4	1	11	45	48 58	142	30	41 1	1	0 28
	427		8 7		11	49	53 93	128	5	8 2	1	0 24
	428		8 7	1	11	51	20 73	128	52	13 9	1	0 24
	429		9 0	1	11	51	33 69	144	12	35 9	1	0 28
	430		9 7	2	11	53	47 12	129	35	29 0	2	0 23
	431		9 0	1	11	56	20 43	128	29	37 2	1	0 37
	432	5534 Taylor	8 0	1	11	56	46 47	143	56	59 0	1	0 27
	433	4995 Lacaille	7 3	1	11	56	51 02	142	44	6 0	1	0 29
	434	89 R P L	6 3		11	57	48 13	3	39	13 4	10	0 43
	435	..	8 0	1	11	58	58 32	128	27	25 6	1	0 24
	436		8 0	1	11	59	41 35	144	15	51 2	1	0 28
	437		9 0	1	12	1	33 96	130	1	14 1	1	0 23
	438	5041 Lacaille	8 2	1	12	2	29 66	141	22	52 4	1	0 27
	439		9 5	1	12	2	34 21	141	5	17 7	1	0 10
	440	2 Corvi ε	3 0		12	3	4 96	111	51	28 0	5	0 34
	441		9 0	1	12	3	35 27	145	56	44 2	1	0 27
	442		8 0	1	12	5	44 87	134	7	45 7	1	0 32
	443		9 5	1	12	5	59 86	130	10	45 5	1	0 23
	444		8 0	1	12	6	9 37	138	27	11 7	1	0 28
	445		9 4	1	12	6	26 01	142	50	19 4	1	0 29
5233	446	5613 Taylor	7 2	1	12	7	52 ~~61~~ 33	130	22	28 7	1	0 24
	447	69 Urs Maj δ (*Mizar*)	4 5		12	8	37 92	32	12	22 1	3	0 25
	448		8 0	1	12	8	46 95	144	19	53 0	1	0 28
	449	15 Virginis η	3 7		12	12	53 82	89	54	19 3	4	0 36
	450		9 6	1	12	14	0 35	143	44	28 3	1	0 27
	451	5119 Lacaille	9 0	1	12	15	18 51	138	33	54 9	1	0 18
	452		8 5	1	12	15	48 74	141	39	37 5	1	0 27
	453		8 9	1	12	16	42 61	147	9	26 1	1	0 27
	454		10 0	1	12	18	35 77	143	29	47 8	1	0 29
	455		9 3	1	12	18	57 33	129	43	26 9	1	0 23

434.—1850 Groombridge

428 — Double companion fainter and n p of the one observed

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
421	94 Leonis β	+ 3 1007	− 0 0074	− 0 036	+19 994	+ 0 025	+ 0 10	3995
422		+ 2 9376	+ 0 0382		+20 000	+ 0 022		
423	5427 Taylor	+ 3 0646	+ 0 0034		+20 007	+ 0 022		4006
424		+ 2 9997	+ 0 0241		+20 011	+ 0 020		
425	5433 Taylor	+ 2 9990	+ 0 0246		+20 011	+ 0 020		
426		+ ~~2·9142~~	+ 0 0373		+20 017	+ 0 017		
427		+ 3 0259	+ 0 0241		+20 036	+ 0 010		
428		+ 3 0314	+ 0 0249		+20 041	+ 0 007		
429		+ 3 0038	+ 0 0410		+20 042	+ 0 007		
430		+ 3 0420	+ 0 0258		+20 048	+ 0·003		
431		+ 3 0550	+ 0 0253		+20 053	− 0 002		
432	5534 Taylor	+ 3 0462	+ 0 0421		+20 053	− 0 003		
433	4995 Lacaille	+ 3 0479	+ 0 0404		+20 053	− 0 003		
434	89 R P L	+ 3 2726	− 0 5270		+20 054	− 0 004		4070
435		+ 3 0673	+ 0 0255		+20 055	− 0 007		
436		+ 3 0695	+ 0 0434		+20 055	− 0 009		
437		+ 3 0798	+ 0 0273		+20 054	− 0 012		
438	5041 Lacaille	+ 3 0903	+ 0 0400		+20 054	− 0 014		
439		+ 3 0906	+ 0 0396		+20 054	− 0 015		
440	2 Corvi ε	+ 3 0792	+ 0 0142	− 0 005	+20 054	− 0 016	− 0 01	4097
441		+ 3 1030	+ 0 0473		+20 053	− 0 016		
442		+ 3 1045	+ 0 0318		+20 049	− 0 021		
443		+ 3 1016	+ 0 0280		+20 048	− 0 021		
444		+ 3 1126	+ 0 0369		+20 048	− 0 022		
445		+ 3 1216	+ 0 0410		+20 048	− 0 022		
446	5613 Taylor	+ 3 1111	+ 0 0284		+20 044	− 0 025		
0 0425 — 447	69 Urs Maj δ	+ 2 9922	− ~~0 0465~~	+ 0 015	+20 041	− 0 026	+ 0 04	4123
448		+ 3 1434	+ 0 0460		+20 041	− 0 027		
449	15 Virginis η	+ 3 0719	+ 0 0027	− 0 007	+20 023	− 0 035	+ 0 03	4145
450		+ 3 1833	+ 0 0464		+20 018	− 0 038		
451	5119 Lacaille	+ 3 1731	+ ~~0·0382~~		+20 010	− 0 040		
452		+ 3 1886	+ 0 0435		+20 008	− 0 042		
453		+ 3 2229	+ 0 0535		+20 001	− 0 044		
454		+ 3 2185	+ 0 0464		+19 989	− 0 047		
455		+ 3 1638	+ 0 0292		+19 987	− 0 047		

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
456		7 8	1	12	18	59 97	147	20	59 3	1	0 21
457		7 9	1	12	19	~~13 36~~ [illegible]	144	3	50 2	1	0 28
458		8 5	1	12	19	49 79	124	12	47 8	1	0 32
459		7 8	1	12	20	42 62	141	18	58 0	1	0 28
460	5725 Taylor	7 0	1	12	21	6 95	145	38	27 1	1	0 18
461	21 Virginis *q*	5 5	2	12	26	42 48	98	41	45 2	2	0 27
462	9 Corvi *β*	2 3		12	27	11 69	112	38	19 7	5	0 37
463		9 0	1	12	27	46 22	140	55	11 2	1	0 28
464		9 0	1	12	30	47 53	142	19	22 4	1	0 28
465	R Virginis Var 2	9 1	3	12	31	32 83	82	15	27 4	3	0 33
466		9 3	1	12	31	43 89	84	30	11 7	1	0 38
467	26 Virginis *χ*	5 0	2	12	32	10 64	97	14	27 6	5	0 28
468		9 0	1	12	32	46 05	143	7	2 1	1	0 29
469		8 9	1	12	33	43 61	145	33	10 0	1	0 27
470	5830 Taylor	7 8	1	12	34	23 55	144	0	34 8	1	0 27
471	29 Virginis γ^1 (*north*)	8 5		12	34	43 09	90	41	49 0	1	0 40
472	S Ursæ Majoris Var 2	8 5	1	12	37	~~54 71~~ 63	28	9	19 6	1	0 38
473	5863 Taylor	7 5	1	12	38	18 48	143	51	43 8	1	0 27
474		8 8	1	12	41	36 48	141	49	14 8	1	0 28
475		9 0	1	12	42	20 72	147	18	24 6	1	0 27
476		8 9	1	12	42	44 02	142	51	35 8	1	0 29
477		9 0	1	12	42	47 52	139	24	55 7	1	0 26
478		8 9	1	12	43	13 93	129	7	30 6	1	0 29
479	40 Virginis *ψ*	5 0	1	12	47	13 92	98	47	38 8	2	0 25
480	99 R P L	5 6		12	48	10 08	5	50	33 2	2	0 59
481		8 9	1	12	49	20 13	145	33	53 6	1	0 27
482	12 Canum Venaticorum *α*	3 0		12	49	36 76	50	56	28 9	5	0 38
483	5974 Taylor	8 9	1	12	51	50 95	143	38	16 2	1	0 27
484		8 4	2	12	53	4 27	142	23	44 0	2	0 28
485		8 0	1	12	53	22 37	135	44	7 9	1	0 32
486		9 2	1	12	54	34 52	139	18	3 3	1	0 28
487		8 3	1	12	56	56 17	123	24	51 4	1	0 32
488	5381 Lacaille	7 8	1	12	57	4 42	129	56	47 9	1	0 31
489	51 Virginis *θ*	4 7		13	2	51 48	94	48	25 0	5	0 37
490	6057 Taylor	6 0	1	13	3	~~43 62~~ 45 92	149	11	25 0	1	0 18

465 —R Virginis Var 2 —Period 146 days —Range 6 5 to 11th magnitude
472 —S Ursæ Majoris Var 2 —Period 225 days —Range 7th to 12th magnitude
480 —1940 Groombridge
482 —Second star

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
456		+ 3 2449	+ 0 0546		+ 19 986	− 0 040		
457		+ 3 2266	+ 0 0432		+ 19 984	− 0 049		
458		+ 3 1506	+ 0 0244		+ 19 979	− 0 049		
459		+ 3 2228	+ 0 0438		+ 19 973	− 0 051		
460	5725 Taylor	+ 3 2519	+ 0 0517		+ 19 970	− 0 045		
461	21 Virginis q	+ 3 0959	+ 0 0080	− 0 009	+ 19 919	− 0 062	0 00	4230
462	9 Corvi β	+ 3 1379	+ 0 0164	− 0 008	+ 19 915	− 0 064	+ 0 07	4234
463		+ 3 2711	+ 0 0447		+ 19 908	− 0 067		
464		+ 3 3039	+ 0 0476		+ 19 874	− 0 074		
465	R Virginis Var 2	+ 3 0471	− 0 0003		+ 19 865	− 0 070		
466		+ 3 0541	+ 0 0065		+ 19 862	− 0 071		
0 006 − − 467	26 Virginis χ	+ 3 0958	+ 0 0075		+ 19 857	− 0·072		4257
468		+ 3 3259	+ 0 0496		+ 19 850	− 0 079		
469		+ 3 3579	+ 0 0548		+ 19 838	− 0 081		
470	5830 Taylor	+ 3 3472	+ 0 0518		+ 19 829	− 0 082		4266
471	29 Virginis γ^1	+ 3 0744	+ 0 0043	− 0 037	+ 19 826	− 0 078	+ 0 05	4268
472	S Urs Maj Var 2	+ 2 6607	− 0 0360		+ 19 781	− 0 073		
473	5863 Taylor	+ 3 3767	+ 0 0521		+ 19 776	− 0 091		4283
474		+ 3 3790	+ 0 0490		+ 19 726	− 0 097		
475		+ 3 4548	+ 0 0618		+ 19 714	− 0 101		
476		+ 3 3993	+ 0 0512		+ 19 707	− 0·100		
477		+ 3 3618	+ 0 0449		+ 19 706	− 0 099		
478		+ 3 2760	+ 0 0313		+ 19 700	− 0 098		
479	40 Virginis ψ	+ 3 1144	+ 0 0092	− 0 002	+ 19 631	− 0 101	+ 0 04	4330
480	99 R P L	+ 0 3463	+ 0 2269	− 0 017	+ 19 614	− 0 019	− 0 04	4339
481		+ 3 4886	+ 0 0586		+ 19 598	− 0 117		
482	12 Can Ven α	+ 2 8389	− 0 0152	− 0 023	+ 19 587	− 0 090	− 0 06	4346
483	5974 Taylor	+ 3 4794	+ 0 0546		+ 19 544	− 0 122		
484		+ 3 4704	+ 0 0522		+ 19 519	− 0 109		
485		+ 3 3887	+ 0 0407		+ 19 514	− 0 123		
486		+ 3 4387	+ 0 0465		+ 19 489	− 0 127		
487		+ 3 2889	+ 0 0268		+ 19 440	− 0 126		
488	5381 Lacaille	+ 3 3481	+ 0 0335		+ 19 437	− 0 128		
489	51 Virginis θ	+ 3 1025	+ 0 0078	− 0 004	+ 19 306	− 0 132	+ 0·04	4401
490	6057 Taylor	+ 3 6875	+ 0 0719		+ 19 285	− 0 156		4412

480—Proper Motions adopted from ‘ *Radcliffe Polar List for* 1855 ’

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
491		9 2	1	13	4	28 48	138	10	13 4	1	0 29
492		9 5	1	13	4	32 00	143	12	0 9	1	0 27
493		8 9	1	13	5	33 90	124	16	11 8	1	0 32
494	W Virginis Var 1	8 8	1	13	6	51 05	105	49	35 1	2	0 39
495		9 0	1	13	7	35 75	139	45	53 0	1	0 28
496		8 7	1	13	9	42 08	129	55	57 0	1	0 31
497	58 Virginis	6 5		13	10	16 63	99	49	23 6	2	0 40
498	6129 Taylor	7 4	1	13	12	9 65	130	28	12 8	1	0 37
499		7 9	1	13	12	49 63	122	56	14 5	1	0 33
500	5503 Lacaille	8 0	1	13	14	5 50	125	23	32 1	1	0 38
501		9 0	1	13	15	43 91	145	12	31 9	1	0 27
502	67 Virginis α (*Spica*)	1 0		13	17	58 68	100	26	42 5	9	0 36
503	12872 O A S	10 2	1	13	19	17 48	116	56	5 0	1	0 31
504	5546 Lacaille	9 0	1	13	19	37 46	143	27	9 0	1	0 28
505	103 R P L	7 3		13	20	18 58	4	31	44 6	1	0 93
506	R Hydræ Var 1	6 8	3	13	22	13 91	112	34	19 6	4	0 31
507	76 Virginis *h*	5 0	1	13	25	45 31	100	27	29 7	3	0 28
508	S Virginis Var 6	7 4	4	13	25	50 89	96	29	22 2	4	0 30
509	79 Virginis ζ	4 0		13	27	42 82	89	55	39 8	12	0 39
510		7 8	1	13	32	54 55	129	1	18 1	1	0 29
511	6363 Taylor	8 0	1	13	36	34 58	147	33	9 7	1	0 29
512		9 0	1	13	37	27 78	123	39	58 8	1	0 10
513		8 8	1	13	38	10 39	122	46	44 4	1	0 35
514		9 3	1	13	40	26 82	129	23	43 2	1	0 38
515	25463 Lalande	9 3	3	13	42	15 16	64	57	26 5	3	0 32
516	89 Virginis	5 7		13	42	25 86	107	27	0 7	2	0 41
517		8 3	1	13	43	10 81	123	6	14 3	1	0 35
518		9 0	1	13	44	11 61	127	56	26 1	1	0 38
519		9 7	1	13	45	19 85	128	22	47 0	1	0 40
520		8 3	2	13	45	38 93	122	54	14 1	2	0 33
521	8 Bootis η	3 0		13	48	9 62	70	54	51 9	9	0 40
522		8 0	1	13	50	37 09	128	43	37 5	1	0 35
523	25759 Lalande	7 6	4	13	54	39 24	67	21	29 6	5	0 36
524	93 Virginis τ	4 5		13	54	40 51	87	47	27 2	5	0 41
525	25896 Lalande	7 5	4	13	59	51 48	67	10	35 8	4	0 33

494 —W Virginis Var 1 —Changes irregularly from 7th to 10 5 magnitude
505 —2007 Groombridge
506 —R Hydræ Var 1 —Period about 15 months — Range 4th to 10th magnitude
508 —S Virginis Var 6 —Period 374 days —Range, 6th to 12 5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
491		+ 3 4868	+ 0 0459		+ 19 267	− 0 150		
492		+ 3 5687	+ 0 0562		+ 19 266	− 0 153		
493		+ 3 3292	+ 0 0282		+ 19 240	− 0 145		
494	W Virginis Var 1	+ 3 1810	+ 0 0142		+ 19 208	− 0 142		
495		+ 3 5314	+ 0 0493		+ 19 189	− 0 158		
496		+ 3 4072	+ 0 0346		+ 19 135	− 0 157		
497	58 Virginis	+ 3 1420	+ 0 0109		+ 19 120	− 0 147		4442
498	6129 Taylor	+ 3 4253	+ 0 0353		+ 19 069	− 0 163		
499		+ 3 3427	+ 0 0273		+ 19 051	− 0 161		
500	5503 Lacaille	+ 3 3739	+ 0 0298		+ 19 016	− 0 164		
501		+ 3 6965	+ 0 0629		+ 18 970	− 0 183		
502	67 Virginis α	+ 3 1544	+ 0 0100	− 0 005	+ 18 906	− 0 163	+ 0 04	4480
503	12872 O A S	+ 3 3024	+ 0 0224		+ 18 867	− 0 172		
504	5546 Lacaille	+ 3 6862	+ 0 0589		+ 18 857	− 0 192		
505	103 R P L	− 2 7201	+ 0 9899		+ 18 836	+ 0 128		4498
506	R Hydræ Var 1	+ 3 2672	+ 0 0192		+ 18 779	− 0 176		4501
507	76 Virginis h	+ 3 1535	+ 0 0113		+ 18 668	− 0 176		4521
508	S Virginis Var 6	+ 3 1277	+ 0 0096		+ 18 664	− 0 175		
509	79 Virginis ζ	+ 3 0710	+ 0 0064	− 0 019	+ 18 605	− 0 176	− 0 06	4532
510		+ 3 4994	+ 0 0349		+ 18 429	− 0 210		
511	6363 Taylor	+ 3 9822	+ 0 0733		+ 18 300	− 0 243		
512		+ 3 5135	+ 0 0346		+ 18 270	− 0 220		
513		+ 3 4297	+ 0 0283		+ 18 242	− 0 216		
514		+ 3 5380	+ 0 0356		+ 18 160	− 0 228		
515	25463 Lalande	+ 2 8026	− 0 0032		+ 18 092	− 0 184		
516	89 Virginis	+ 3 2537	+ 0 0164	− 0 009	+ 18 085	− 0 213	+ 0 03	4608
517		+ 3 4514	+ 0 0287		+ 18 057	− 0 227		
518		+ 3 5297	+ 0 0341		+ 18 018	− 0 235		
519		+ 3 5418	+ 0 0346		+ 17 974	− 0 238		
520		+ 3 4568	+ 0 0286		+ 17 962	− 0 233		
521	8 Bootis η	+ 2 8617	− 0 0006	− 0 004	+ 17 868	− 0 199	+ 0 36	4648
522		+ 3 4863	+ 0 0295		+ 17 764	− 0 244		
523	25759 Lalande	+ 2 8047	− 0 0016		+ 17 597	− 0 204		
524	93 Virginis τ	+ 3 0474	+ 0 0064	+ 0 001	+ 17 596	− 0 221	+ 0 07	4672
525	25896 Lalande	+ 2 7911	− 0 0023		+ 17 374	− 0 210		

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
526	6585 Taylor	7 8	1	14	1	18 94	124	13	46 7	1	0 35
527		9 0		14	2	22 39	129	3	58 4	1	0 41
528	108 R P L	7 3		14	4	4 24	3	35	11 3	2	0 62
529	U Bootis Var 4	9 7	1	14	4	18 65	79	32	14 1	1	0 40
530	6616 Taylor	5 7		14	5	26 28	146	26	31 9	1	0 33
531		8 0	1	14	6	5 20	135	1	0 6	1	0 35
532	16 Bootis α (*Arcturus*)	1 0		14	9	24 78	70	6	11 5	5	0 43
533	100 Virginis λ	5 0		14	11	41 84	102	44	19 0	3	0 38
534		9 3	1	14	12	26 89	136	49	32 4	1	0 35
535		8 9	1	14	14	30 90	122	35	29 6	1	0 33
536		8 7		14	15	15 99	122	11	18 7	1	0 35
537	6709 Taylor	7 0	1	14	15	55 15	119	3	2 1	1	0 35
538		9 9	1	14	17	21 04	123	13	6 2	1	0 33
539	6740 Taylor	7 6	1	14	19	1 39	133	42	38 0	1	0 32
540		8 7	1	14	21	53 94	122	33	43 7	1	0 33
541	5962 Lacaille	8 0	1	14	22	38 49	129	46	28 6	1	0 38
542		8 0	1	14	23	38 57	136	54	8 5	1	0 35
543		8 0	1	14	24	9 13	123	48	17 8	1	0 34
544	25 Bootis ρ	4 0		14	25	55 47	59	1	33 5	6	0 42
545		9 5	1	14	26	40 04	123	19	45 2	1	0 33
546		7 8	1	14	29	23 02	124	55	13 4	1	0 37
547	6027 Lacaille	7 7	1	14	31	0 63	122	47	2 2	1	0 33
548	R Bootis Var 1	8 2	2	14	31	9 02	62	40	3 1	3	0 38
549		7 6	1	14	32	38 73	121	44	2 6	1	0 35
550	6848 Taylor	7 7	1	14	32	44 22	136	41	2 4	1	0 35
551	5 Libræ	6 3		14	38	24 82	104	52	48 4	1	0 36
552	36 Bootis ε	2·3		14	39	0 13	62	20	48 1	5	0 48
553		7 7	1	14	39	16 66	124	9	20 8	1	0 37
554	27022 Lalande	7 5	3	14	43	10 48	78	56	9 6	4	0 35
555	9 Libræ α^2	2 5		14	43	18 15	105	28	12 9	4	0 39
556	27123 Lalande	8·2	3	14	47	20 01	109	27	7 9	4	0 36
557		8 9	1	14	51	31 68	123	12	29 6	1	0 37
558		8 3	1	14	57	38 39	131	30	27 2	1	0 35
559	43 Bootis ψ	5 0		14	58	34 52	62	30	59 2	5	0 47
560	7079 Taylor	6 7		15	3	16 26	123	7	1 1	1	0 36

528 —2099 Groombridge
529 —U Bootis Var 4 —Period uncertain —Range 8 7 to 12th magnitude
548 —R Bootis Var 1 —Period 223 days —Range 6th to 12th magnitude
556 —Comparison star for Iris in 1861

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
526	6585 Taylor	+ 3 5314	+ 0 0302		+ 17 310	− 0 268		
527		+ 3 6245	+ 0 0357		+ 17 263	− 0 276		
528	108 R P L	− 7 9195	+ 2 5264		+ 17 187	+ 0 588		
529	U Bootis Var 4	+ 2 9446	+ 0 0035		+ 17 177	− 0 229		
530	6616 Taylor	+ 4 1210	+ 0 0686		+ 17 125	− 0 320		4709
531		+ 3 7715	+ 0 0445		+ 17 096	− 0 295		
532	16 Bootis α	+ 2 8132	+ 0 0004	− 0 079	+ 16 943	− 0 227	+ 1 93	4729
533	100 Virginis λ	+ 3 2363	+ 0 0140	− 0 002	+ 16 834	− 0 264	− 0 02	4743
534		+ 3 8505	+ 0 0477		+ 16 798	− 0 314		
535		+ 3 5455	+ 0 0284		+ 16 699	− 0 293		
536		+ 3 5405	+ 0 0281		+ 16 662	− 0 294		
537	6709 Taylor	+ 3 4872	+ 0 0252		+ 16 630	− 0 292		
538		+ 3 5659	+ 0 0292		+ 16 560	− 0 301		
539	6740 Taylor	+ 3 8007	+ 0 0423		+ 16 477	− 0 323		
540		+ 3 5675	+ 0 0285		+ 16 332	− 0 309		
541	5962 Lacaille	+ 3 7209	+ 0 0365		+ 16 295	− 0 324		
542		+ 3 9102	+ 0 0476		+ 16 243	− 0 342		
543		+ 3 5987	+ 0 0297		+ 16 217	− 0 316		
544	25 Bootis ρ	+ 2 5948	− 0 0015	− 0 008	+ 16 126	− 0 233	− 0 14	4808
545		+ 3 5970	+ 0 0291		+ 16 087	− 0 321		
546		+ 3 6383	+ 0 0306		+ 15 944	− 0 329		
547	6027 Lacaille	+ 3 5992	+ 0 0284		+ 15 857	− 0 329		
548	R Bootis Var 1	+ 2 6436	− 0 0004		+ 15 849	− 0 244		
549		+ 3 5830	+ 0 0274		+ 15 769	− 0 330		
550	6848 Taylor	+ 3 9487	+ 0 0469		+ 17 764	− 0 364		
551	5 Libræ	+ 3 2986	+ 0 0152	− 0 003	+ 15 452	− 0 314	+ 0 01	4868
552	35 Bootis ε	+ 2 6240	− 0 0001	− 0 005	+ 15 419	− 0 252	− 0 01	4876
553		+ 3 6529	+ 0 0294		+ 15 403	− 0 349		
554	27022 Lalande	+ 2 9012	+ 0 0045		+ 15 183	− 0 283		
555	9 Libræ α^2	+ 3 3139	+ 0 0154	− 0 007	+ 15 176	− 0 324	+ 0 06	4895
556	27123 Lalande	+ 3 3870	+ 0 0178		+ 14 943	− 0 335		
557		+ 3 6677	+ 0 0280		+ 14 696	− 0 370		
558		+ 3 9000	+ 0 0371		+ 14 326	− 0 405		
559	43 Bootis ψ	+ 2 5833	+ 0 0010	− 0 013	+ 14 265	− 0 232	0 00	4969
560	7079 Taylor	+ 3 6975	+ 0 0273		+ 13 978	− 0 393		

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
561		8 5	1	15	3	30 06	122	18	27 9	1	0 37
562	24 Libræ ι^1	5 6	1	15	4	25 06	109	16	14 5	2	0 37
563	111 R P L	7 0		15	5	51 25	5	31	8 6	2	0 65
564		8 9	1	15	6	39 40	130	26	16 4	1	0 40
565	27 Libræ β	2 0		15	9	38 30	98	52	30 1	6	0 45
566		9 2	1	15	11	47 26	130	23	46 9	1	0 38
567		9 2	1	15	14	8 23	123	7	17 9	1	0 37
568	S Serpentis Var 3	10 3	1	15	15	14 94	75	11	28 9	1	0 40
569		9 0	1	15	20	19 71	130	8	21 5	1	0 38
570	32 Libræ 3[1]	4 0		15	20	32 08	106	14	10 2	2	0 38
[3608] 571		9 0	1	15	21	3~~7~~6 08	129	25	47 1	1	0 40
572	7220 Taylor	7 9	1	15	22	2 85	123	6	20 8	1	0 42
573	114 R P L	7 0		15	22	52 68	2	14	49 8	1	0 95
574	7240 Taylor	7 8	1	15	24	20 21	130	1	16 1	1	0 38
575		7 9	1	15	24	56 73	122	43	24 4	1	0 37
576	5 Cor Bor α (*Alphcta*)	2 0		15	28	53 23	62	49	20 2	3	0 47
577		8 8	1	15	28	55 03	119	~~33~~ 37	~~51 9~~ 34 4	1	0 38
578		9 3	1	15	30	6 00	129	33	14 7	1	0 40
579	43 Libræ κ	5 0	1	15	34	3 55	109	13	54 7	1	0 34
580		8 3	1	15	34	46 79	129	1	16 1	1	0 38
581	XV 704 W B E	8 4	3	15	37	12 43	92	34	38 5	3	0 37
582	24 Serpentis α	2 3		15	37	31 25	83	8	27 2	6	0 18
583	28787 Lalande	8 4	2	15	42	2 89	92	48	43 2	3	0 41
584	R Coronæ Borealis Var 1	7 4	2	15	42	55 81	61	25	16 9	2	0 41
585	R Serpentis Var 2	9 4	1	15	44	22 70	74	26	~~27 0~~ 55 0	1	0 37
586	46 Libræ θ	4 7		15	46	1 66	106	19	27 5	1	0 49
587		7 0	1	15	50	59 46	143	45	3 8	1	0 11
588	7 Scorpii δ	3 5		15	52	14 19	112	13	43 4	1	0 49
589	7439 Taylor	8 5	1	15	54	22 91	126	44	53 8	1	0 38
590	8 Scorpii β^1	2 0		15	57	23 52	109	25	38 6	6	0 44
591	29391 Lalande	7 0	2	16	1	45 44	102	41	13 4	4	0 15
592	116 R P L	7 0		16	4	55 39	4	18	35 9	3	0 76
593	XVI 83 W B E	8 0		16	5	59 73	102	40	55 2	1	0 41
594	1 Ophiuchi δ	3 0		16	7	10 31	93	20	20 9	1	0 54
595	29610 Lalande	8 0		16	8	6 82	105	32	24 2	1	0 41

561 —Double —the second star observed
563 —2213 Groombridge
568 —S Serpentis Var 3 —Period 361 days —Range 8th to 12 5 magnitude
573 —2283 Groombridge
583—591—595 —Comparison stars for Donati s Comet of 1858
584 —R Coronæ Borealis Var 1 —Period 323 days —Range 6th to 13th magnitude
358 —585 —R SerpentisVar 2 —Period ~~658~~ days —Range, 6th to 11th magnitude
592 —2423 Carrington.

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension Annual Precession	In Right Ascension Secular Variation	In Right Ascension Proper Motion	In Polar Distance Annual Precession	In Polar Distance Secular Variation	In Polar Distance Proper Motion	Number in B A C
		s	s	s				
561		+ 3 6789	+ 0 0264		+ 13 963	− 0 392		
562	24 Libræ ι^1	+ 3 4089	+ 0 0171	− 0 002	+ 13 905	− 0 364	+ 0 04	4995
563	111 R P L	− 6 9589	+ 1 1901		+ 13 814	+ 0 730		5022
564		+ 3 9008	+ 0 0349		+ 13 763	− 0 420		
565	27 Libræ β	+ 3 2257	+ 0 0117	− 0 009	+ 13 572	− 0 353	+ 0 01	5034
566		+ 3 9169	+ 0 0343		+ 13 433	− 0 431		
567		+ 3 7257	+ 0 0264		+ 13 280	− 0 414		
568	S Serpentis Var 3	+ 2 8060	+ 0 0042		+ 13 206	− 0 314		
569		+ 3 9367	+ 0 0332		+ 12 869	− 0 447		
570	32 Libræ 3^1	+ 3 3709	+ 0 0148	+ 0 002	+ 12 856	− 0 384	+ 0 05	5089
571		+ 3 9192	+ 0 0322		+ 12 782	− 0 445		
572	7220 Taylor	+ 3 7448	+ 0 0258		+ 12 754	− 0 427		
573	114 R P L	− 23 3003	+ 7 8117		+ 12 697	+ 2 626		5140
574	7240 Taylor	+ 3 9456	+ 0 0325		+ 12 598	− 0 453		
575		+ 3 7419	+ 0 0252		+ 12 557	− 0 431		
576	5 Coronæ Borealis α	+ 2 5294	+ 0 0023	+ 0 009	+ 12 286	− 0 297	+ 0 07	5143
577		+ 3 6736	+ 0 0224		+ 12 284	− 0 429		
578		+ 3 9484	+ 0 0314		+ 12 202	− 0 463		
579	43 Libræ κ	+ 3 4471	+ 0 0157	− 0 003	+ 11 925	− 0 409	+ 0 12	5176
580		+ 3 9452	+ 0 0302		+ 11 874	− 0 471		
581	XV 704 W B E	+ 3 1211	+ 0 0089		+ 11 702	− 0 375		
582	24 Serpentis α	+ 2 9413	+ 0 0062	+ 0 009	+ 11 680	− 0 354	− 0 05	5196
583	28787 Lalande	+ 3 1262	+ 0 0088		+ 11 356	− 0 381		
584	R Cor Bor Var 1	+ 2 4702	+ 0 0026		+ 11 292	− 0 303		5236
585	R Serpentis Var 2	+ 2 7631	+ 0 0043		+ 11 187	− 0 340		
586	46 Libræ θ	+ 3 3987	+ 0 0136	+ 0 009	+ 11 067	− 0 418	− 0 12	5257
587		+ 4 6143	+ 0 0506		+ 10 702	− 0 575		
588	7 Scorpii δ	+ 3 5358	+ 0 0159	− 0 001	+ 10 610	− 0 443	+ 0 01	5303
589	7439 Taylor	+ 3 9226	+ 0 0761		+ 10 450	− 0 493		
590	8 Scorpii β^1	+ 3 4777	+ 0 0142	− 0 002	+ 10 219	− 0 441	+ 0 02	5329
591	29391 Lalande	+ 3 3339	+ 0 0113		+ 9 894	− 0 427		
592	116 R P L	− 12 4775	+ 1 7542		+ 9 652	+ 1 591		
593	XVI 83 W B E	+ 3 3365	+ 0 0111		+ 9 570	− 0 431		
594	1 Ophiuchi δ	+ 3 1407	+ 0 0081	− 0 006	+ 9 480	− 0 408	+ 0 13	5414
595	29610 Lalande	+ 3 4005	+ 0 0119		+ 9 406	− 0 442		

570—586—Proper Motions adopted from ‘*Greenwich Catalogue*

Mean Positions of Stars for 1863 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
596	R Scorpii Var 1	10 5	4	16	9	29 32	112	36	12 5	4	0 34
597		10 0	1	16	9	39 76	112	33	22 5	1	0 54
598	20 Scorpii σ	3 3		16	12	52 00	115	15	37 9	1	0 41
599	15552 O A S	9 0	1	16	13	10 71	107	21	51 8	1	0 41
600		7 5	1	16	14	7 95	146	10	55 2	1	0 42
601	U Scorpii Var 4	9 0		16	14	37 24	107	33	6 6	2	0 39
602		9·5	1	16	15	42 36	128	7	31 7	1	0 38
603	15607 O A S	9 0	2	16	16	48 43	107	14	20 3	3	0 49
604		9 2	1	16	17	55 39	129	30	26 5	1	0 40
605	21 Scorpii α (*Antares*)	1 3		16	21	0 70	116	7	27 8	7	0 39
606	23 Scorpii τ	3 3		16	27	21 53	117	55	42 0	2	0 34
607	5784 Brisbane	9 5	1	16	30	49 55	150	39	19 7	1	0 55
608		7 8	1	16	34	32 73	134	6	54 5	1	0 42
609	40 Herculis 3	2 7		16	36	7 31	58	8	50 7	5	0 51
610	15952 O A S	9 2	1	16	39	18 72	111	55	24 7	1	0 38
611	S Herculis Var 3	7 9	3	16	45	39 68	74	49	31 9	3	0 40
612		8 0	1	16	48	49 65	125	31	11 1	1	0 34
613	27 Ophiuchi κ	3 5		16	51	11 00	80	24	34 0	8	0 52
614		8 2	1	16	52	1 15	122	48	45 1	1	0 42
615	16233 O A S	8 0	1	16	53	55 13	110	23	27 8	1	0 57
616	16288 O A S	7 5	1	16	56	24 05	119	50	1 1	1	0 41
617	7926 Taylor	8 0	1	16	59	41 77	136	50	57 9	1	0 52
618	64 Herculis α Var 1	3 5		17	8	24 07	75	27	4 2	9	0 50
619		8 0	1	17	8	~~56 66~~ 54	124	4	10 4	1	0 42
620	42 Ophiuchi θ	3 5		17	13	35 85	114	51	32 7	9	0 52
621	44 Ophiuchi *b*	5 0	1	17	18	0 33	114	2	44 1	2	0 42
622	45 Ophiuchi *d*	5 0		17	18	36 50	119	44	21 7	1	0 34
623	δ Aræ	4 0		17	18	44 27	150	33	53 2	1	0 57
624		8 8	2	17	28	21 22	125	14	35 7	2	0 57
625	55 Ophiuchi α	2 0		17	28	34 50	77	20	16 4	5	0 49
626		10 2	1	17	34	30 41	126	15	2 1	1	0 64
627	58 Ophiuchi	5 0		17	35	13 22	111	36	46 7	2	0 49
628		8 5	1	17	39	29 41	127	21	33 1	1	0 61
629		8 0	1	17	39	51 70	126	28	13 6	1	0 42
630		7 7	1	17	43	16 46	128	36	10 7	1	0 49

596 —R Scorpii Var 1 —Period 223 days —Range, 9th magnitude to invisibility
601 —U Scorpii Var 4—A new temporary star about 9th magnitude when brightest
603 —Comparison star for U Scorpii Var 4 on its discovery
611 —S Herculis Var 3 —Period 303 days —Range 6th to 12th magnitude
618 —α Herculis Var 1 —Supposed to change irregularly from 3rd to 4th magnitude
624—626—628—630 —Comparison stars for Donati s Comet of 1858

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
596	R Scorpii Var 1	+ 3 5652	+ 0 0147		+ 9 300	− 0 465		
597		+ 3 5643	+ 0 0147		+ 9 286	− 0 465		
598	20 Scorpii σ	+ 3 3653	+ 0 0156	− 0 003	+ 9 038	− 0 478	− 0 01	5447
599	15552 O A S	+ 3 4456	+ 0 0121		+ 9 013	− 0 453		
600		+ 4 8588	+ 0 0492		+ 8 938	− 0 638		
601	U Scorpii Var 4	+ 3 4511	+ 0 0121		+ 8 900	− 0 455		
602		+ 4 0146	+ 0 0233		+ 8 815	− 0 530		
603	15607 O A S	+ 3 4455	+ 0 0118		+ 8 728	− 0 457		
604		+ 4 0670	+ 0 0240		+ 8 640	− 0 540		
605	21 Scorpii α	+ 3 6675	+ 0 0150	− 0 001	+ 8 396	− 0 491	+ 0 03	5498
606	23 Scorpii τ	+ 3 7237	+ 0 0152	− 0 001	+ 7 888	− 0 452	+ 0 02	5539
607	5784 Brisbane	+ 5 2725	+ 0 0545		+ 7 608	− 0 715		5554
608		+ 4 2794	+ 0 0247		+ 7 306	− 0 584		
609	40 Herculis 3	+ 2 2963	+ 0 0033	− 0 034	+ 7 178	− 0 316	− 0 45	5604
610	15952 O A S	+ 3 5772	+ 0 0114		+ 6 916	− 0 493		
611	S Herculis Var 3	+ 2 7283	+ 0 0039		+ 6 392	− 0 380		
612		+ 3 9808	+ 0 0156		+ 6 129	− 0 556		
613	27 Ophiuchi κ	+ 2 8562	+ 0 0043	− 0 023	+ 5 932	− 0 401	− 0 02	5708
614		+ 3 8965	+ 0 0137		+ 5 862	− 0 547		
615	16233 O A S	+ 3 5485	+ 0 0093		+ 5 703	− 0 498		
616	16288 O A S	+ 3 8095	+ 0 0119		+ 5 494	− 0 537		
617	7926 Taylor	+ 4 4492	+ 0 0203		+ 5 217	− 0 629		
618	64 Herculis α Var 1	+ 2 7338	+ 0 0035	− 0 003	+ 4 477	− 0 391	− 0 04	5821
619		+ 3 9538	+ 0 0113		+ 4 431	− 0 565		
620	42 Ophiuchi θ	+ 3 6787	+ 0 0080	− 0 003	+ 4 033	− 0 528	− 0 02	5851
621	44 Ophiuchi b	+ 3 6586	+ 0 0073	− 0 002	+ 3 654	− 0 527	+ 0 12	5876
622	45 Ophiuchi d	+ 3 8235	+ 0 0084	− 0 002	+ 3 602	− 0 551	+ 0 18	5881
623	δ Aræ	+ 5 4032	+ 0 0263	− 0 009	+ 3 591	− 0 777	+ 0 09	5877
624		+ 4 0076	+ 0 0079		+ 2 761	− 0 580		
625	55 Ophiuchi α	+ 2 7744	+ 0 0030	+ 0 004	+ 2 741	− 0 402	+ 0 20	5941
626		+ 4 0464	+ 0 0069		+ 2 227	− 0 587		
627	58 Ophiuchi	+ 3 5987	+ 0 0050	− 0 010	+ 2 164	− 0 523	− 0 04	5987
628		+ 4 0887	+ 0 0060		+ 1 792	− 0 595		
629		+ 4 0566	+ 0 0057		+ 1 760	− 0 591		
630		+ 4 1367	+ 0 0052		+ 1 462	− 0 603		

613—623 —Proper Motions adopted from '*Stone's Catalogue*'
622 —Proper Motion in Right Ascension taken from "*Greenwich Catalogue*"

Mean Positions of Stars for 1863 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
631		9 0	1	17	44	58 68	128	47	40 9	1	0 55
632	7504 Lacaille	7 0	1	17	48	28 07	129	6	46 9	1	0 44
633		8 7	1	17	50	20 87	130	50	17 6	1	0 49
634	4 Sagittarii *b*	5 0	1	17	51	25 62	113	47	59 7	2	0 49
635	γ Sagittarii Var 6	5 5		17	56	16 20	119	34	56 7	1	0 42
636		9 0	2	18	2	45 18	131	44	29 4	2	0 56
637		10 5	1	18	4	45 03	120	43	36 2	1	0 65
638	13 Sagittarii μ^1	4 5		18	5	34 17	111	5	28 3	9	0 53
639		8 0	1	18	6	1 14	122	25	10 8	1	0 44
640	23 Ursæ Minoris δ	4 5		18	16	32 44	3	23	47 7	9	0 08
641	22 Sagittarii λ	4 0		18	19	30 91	115	29	36 7	1	0 42
642	δ^2 Telescopii	5 0		18	21	53 73	135	50	49 0	1	0 64
643		8 9	1	18	28	12 72	135	34	34 5	1	0 64
644	3 Lyræ α (Vega)	1 0		18	32	17 94	51	20	31 7	6	0 58
645		8 9	4	18	35	44 46	137	11	4 0	4	0 61
646	7872 Lacaille	6 3	1	18	42	15 77	136	45	6 9	1	0 65
647	7878 Lacaille	6 5	1	18	42	48 83	136	44	43 0	1	0 69
648	10 Lyræ β Var 1	4 0		18	45	1 25	56	47	40 6	4	0 59
649		8 0	1	18	46	49 55	137	44	59 3	1	0 70
650	13 Lyræ Var 2	4 3		18	51	9 74	46	13	59 4	1	0 58
651		9 3		18	51	58 [illegible]9	149	55	55 2	1	0 64
652	39 Sagittarii *o*	4 7		18	56	28 24	111	56	18 6	2	0 49
653	17 Aquilæ 3	3 3		18	59	6 69	76	20	16 0	7	0 62
654	131 R P L	6 5		18	59	10 45	3	28	4 4	2	0 13
655	R Aquilæ Var 2	9 3	1	18	59	46 23	81	58	30 2	1	0 58
656	41 Sagittarii π	4 5		19	1	36 77	111	14	16 6	2	0 57
657		8 0	1	19	3	1 64	139	22	47 1	1	0 53
658	T Sagittarii Var 3	9 0	3	19	8	19 76	107	12	28 3	4	0 61
659	R Sagittarii Var 1	8 9	2	19	9	39 23	109	32	43 8	2	0 68
660		8 4	2	19	9	56 43	107	9	46 0	3	0 60

631—632—636—643—645—646—647 —Comparison stars for Donati s Comet of 1858
635 —γ^1 Sagittarii Var 6 —Period 7 59 days —Range 5th to 6th magnitude
637 —Observed by mistake for Amphitrite
648 —β Lyræ Var 1 —Period 12 91 days —Range 3 5 to 4 5 magnitude
650 —13 Lyræ Var 2 —Period 46 days —Range 4 2 to 4 6 magnitude
654 —2382 Carrington
655 —R Aquilæ Var 2 —Period 345 days —Range 6 5 to 11th magnitude
658 —T Sagittarii Var 3 —Period 381 days —Range 7 5 magnitude to invisibility
659 —R Sagittarii Var 1 —Period 270 days —Range 7th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
631		+ 4 1146	+ 0 0019		+ 1 314	− 0 601		
632	7504 Lacaille	+ 4 1578	+ 0 0042		+ 1 008	− 0 606		
633		+ 4 2267	+ 0 0042		+ 0 844	− 0 616		
634	4 Sagittarii *b*	+ 3 6614	+ 0 0028	− 0 005	+ 0 750	− 0 533	+ 0 04	6077
635	γ^1 Sagittarii Var 6	+ 3 8310	+ 0 0022		+ 0 326	− 0 559		6107
636		+ 4 2650	+ 0 0007		− 0 211	− 0 622		
637		+ 3 8666	+ 0 0007		− 0 416	− 0 564		
638	13 Sagittarii μ^1	+ 3 5875	+ 0 0009	− 0 004	− 0 487	− 0 523	+ 0 01	6168
639		+ 3 9209	+ 0 0003		− 0 527	− 0 572		
640	23 Urs Min δ	+ 19 3952	− 0 4838	+ 0 048	− 1 446	+ 2 823	− 0 03	6281
641	22 Sagittarii λ	+ 3 7073	− 0 0013	− 0 005	− 1 706	− 0 537	+ 0 24	6263
642	δ^2 Telescopii	+ 4 4428	− 0 0057		− 1 913	− 0 642		6282
643		+ 4 4259	− 0 0073		− 2 462	− 0 610		
644	3 Lyrae α	+ 2 0130	+ 0 0016	~~−~~ 0 017 +0 017	− 2 817	− 0 290	− 0 28	6355
645		+ 4 4976	− 0 0103		− 3 115	− 0 647		
646	7872 Lacaille	+ 4 4694	− 0 0122		− 3 677	− 0 639		
647	7878 Lacaille	+ 4 4685	− 0 0124		− 3 725	− 0 638		
648	10 Lyrae β Var 1	+ 2 2137	+ 0 0015	− 0 002	− 3 914	− 0 315	+ 0 03	6429
649		+ 4 5131	− 0 0142		− 4 069	− 0 643		
650	13 Lyrae Var 2	+ 1 8282	+ 0 0008	− 0 001	− 4 440	− 0 257	0 00	6475
651		+ 5 3223	− 0 0307		− 4 510	− 0 754		
652	39 Sagittarii *o*	+ 3 5944	− 0 0053	+ 0 001	− 4 892	− 0 506	+ 0 05	6507
653	17 Aquilae ζ	+ 2 7578	+ 0 0003	− 0 006	− 5 116	− 0 387	+ 0 07	6528
654	131 R P L	− 18 2584	− 1 6191		− 5 121	+ ~~1 027~~ 1 577		
655	R Aquilae Var 2	+ 2 8900	− 0 0003		− 5 171	− 0 405		
656	41 Sagittarii π	+ 3 5730	− 0 0057	− 0 004	− 5 327	− 0 500	+ 0 03	6548
657		+ 4 5723	− 0 0208		− 5 146	− 0 640		
658	T Sagittarii Var 3	+ 3 4679	− 0 0054		− 5 891	− 0 480		
659	R Sagittarii Var 1	+ 3 5256	− 0 0060		− 5 918	− 0 488		
660		+ 3 4659	− 0 0055		− 6 025	− 0 479		

650 —Proper Motion in Polar Distance from *Greenwich Catalogue*

Mean Positions of Stars for 1863 *January* 1*st*,

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
					h	*m*	*s*						
	661		8 0	1	19	9	59 69	146	13	2 1	1	0 52	
	662	25 Aquilæ ω	5 7		19	11	23 11	78	33	57 4	5	0 63	
	663	44 Sagittarii ρ^1	4 5		19	13	43 46	108	6	7 1	2	0 60	
	664	45 Sagittarii ρ^2	5 5		19	13	51 24	108	33	32 8	1	0 64	
	665	30 Aquilæ δ	3 5		19	18	35 33	87	9	20 4	4	0 61	
8950	666	~~8959~~ Taylor	6 0	1	19	22	3 94	143	28	11 1	1	0 52	
	667	52 Sagittarii h^2	5 0		19	28	21 93	115	10	57 8	2	0 61	
	668		8 7		19	31	32 04	143	15	37 3	1	0 52	
	669	R Cygni Var 3	10 3	1	19	33	10 30	40	4	55 5	1	0 64	
	670	56 Sagittarii *f*	5 3		19	38	22 08	110	5	~~8 1~~	1	0 42	14 1
	671	50 Aquilæ γ	3 0		19	39	44 64	79	43	5 3	5	0 66	
	672	53 Aquilæ α (*Altair*)	1 3		19	44	5 86	81	29	28 1	2	0 07	
	673	χ Cygni Var 2	5 7	1	19	45	17 88	57	25	51 3	1	0 58	
	674	55 Aquilæ η Var 1	5 0	2	19	45	29 50	89	20	36 6	2	0 65	
	675	60 Aquilæ β	4 3		19	48	34 88	83	55	59 2	5	0 69	
	676		8 5	1	19	49	28 86	145	56	59 3	1	0 53	
	677		9 2	1	19	52	55 25	147	11	2 4	1	0 64	
	678	λ Ursæ Minoris	6 3		20	1	3 90	1	6	4 3	8	0 15	
	679	R Capricorni Var 1	9 9	2	20	3	37 14	104	40	13 6	2	0 71	
690	680		8 2	1	20	4	~~0 47~~	147	14	43 1	1	0 53	
	681		9 2	1	20	7	38 36	81	22	38 0	1	0 70	
[48 32]	682	R Sagittæ Var 1	9 7	2	20	7	8 42 ~~49 50~~	73	41	10 8	2	0 07	
	683	5 Capricorni α^1	4 0		20	10	3 01	102	55	43 7	1	0 50	
	684	6 Capricorni α^2	3 5		20	10	26 98	102	58	1 1	7	0 64	
	685	34 Cygni Var 1	5 9	3	20	12	44 35	52	23	30 3	3	0 72	
	686	α Pavonis	2 0		20	14	47 13	147	10	14 4	1	0 57	
	687	8441 Lacaille	8 6	1	20	18	9 46	121	7	9 6	1	0 76	
	688	11 Capricorni ρ	5 0		20	21	2 49	108	15	50 2	12	0 67	
	689		8 8	1	20	27	46 43	143	16	38 9	1	0 76	
	690	24 Cephei (*Hev*) Var 4	7 9	1	20	28	56 11	1	17	22 1	1	0 77	

669 —R Cygni Var 3 —Period 425 days —Range 7th magnitude to invisibility
673 —χ Cygni Var 2 – Period 406 days —Range 4th magnitude to invisibility
674 —η Aquilæ Var 1 —Period 7 176 days —Range 3 5 to 4 7 magnitude
679 —R Capricorni Var 1 —Period 347 days —Range 9th magnitude to invisibility
682 —R Sagittæ Var 1 —Period 70 4 days —Range 8 3 to 10 3 magnitude
685 —34 Cygni Var 1 —Supposed to vary from 3rd to 6th magnitude in many years
690 —144 R P L = 24 Cephei (*Hev*) Var 4 —Changes from 5th to 11th magnitude in many years

Observed with the Madras Meridian Circle in that Year

	Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
			s	s	s			′	
	661		+ 4 9781	− 0 0328		− 6 030	− 0 689		
	662	25 Aquilæ ω	+ 2 8165	− 0 0003	− 0 003	− 6 146	− 0 388	− 0 02	6595
	663	44 Sagittarii ρ^1	+ 3 4867	− 0 0061	− 0 003	− 6 340	− 0 480	− 0 03	6619
	664	45 Sagittarii ρ^2	+ 3 4979	− 0 0062	+ 0 007	− 6 351	− 0 481	+ 0 05	6620
0 014	665	30 Aquilæ δ	+ 3 0094	− 0 0018	~~+ 0 014~~	− 6 744	− 0 410	− 0·10	6646
	666	8950 Taylor	+ 4 7625	− 0 0327		− 7 029	− 0 647		6669
0 002	667	52 Sagittarii h	+ 3 6543	− 0 0102	~~± 0 002~~	− 7 543	− 0 490	− 0 02	6706
	668		+ 3 7222	− 0 0358		− 7 798	− 0 631		
0 0015	669	R Cygni Var 3	+ 1 6129	~~± 0 0015~~		− 7 931	− 0 213		
	670	56 Sagittarii f	+ 3 5166	− 0 0091		− 8 346	− 0 462		6760
	671	50 Aquilæ γ	+ 2 8520	− 0 0011	+ 0 001	− 8 485	− 0 373	0 00	6772
	672	53 Aquilæ α	+ 2 8922	− 0 0014	+ 0 036	− 8 800	− 0 374	− 0 38	6802
	673	χ Cygni Var 2	− 2 3067	+ 0 0013		− 8 895	− 0 297		
	674	55 Aquilæ η Var 1	+ 3 0584	− 0 0031	− 0 001	− 8 908	− 0 396	+ 0 04	6811
	675	60 Aquilæ β	+ 2 9455	− 0 0020	+ 0 002	− 9 151	− 0 378	+ 0 47	6833
	676		+ 4 8290	− 0 0479		− 9 223	− 0 621		
	677		+ 4 8988	− 0 0523		− 9 486	− 0 626		
	678	λ Ursæ Minoris	+ 57 0008	− 29 8260	− 0 035	− 10 109	+ 7 185	− 0 01	6999
	679	R Capricorni Var 1	+ 3 3724	− 0 0087		− 10 301	− 0 418		
	680		+ 4 8580	− 0 0563	–	− 10 837	− 0 602		
	681		+ 2 9000	− 0 0017		− 10 600	− 0 354		
	682	R Sagittæ Var 1	+ 2 7400	− 0 0020		− 10 617	− ~~0 186~~		
	683	5 Capricorni α^1	+ 3 3309	− 0 0084	− 0 002	− 10 779	− 0 406	0 00	6972
	684	6 Capricorni α^2	+ 3 3313	− 0 0084	+ 0 001	− 10 810	− 0 408	0 00	6974
	685	34 Cygni Var 1	+ 2 2101	+ 0 0019		− 10 977	− 0 265		6990
	686	α Pavonis	+ 4 7960	− 0 0594	0 000	− 11 127	− 0 594	+ 0 10	7004
	687	8441 Lacaille	+ 3 7369	− 0 0192		− 11 371	− 0 444		
	688	11 Capricorni ρ	+ 3 4323	− 0 0115	− 0 006	− 11 578	− 0 408	+ 0 01	7042
	689		+ 4 5044	− 0 0515		− 12 053	− 0 520		
	690	24 Cephei (*Hev*) V 4	− 44 2190	− 23 9005		− 12 134	+ 5 140		7184

686 —Proper Motion adopted from *Stone's Catalogue*

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
691		9.0	1	20	29	40.82	113	52	11.6	1	0.75
692	143 R P L	6.7		20	29	50.61	5	18	42.[illegible]	1	0.76
693		8.1	1	20	30	47.79	149	55	34.7	1	0.77
694	S Capricorni Var 2	9.2	2	20	33	53.85	109	3[illegible]	31.3	2	0.67
695	XX 935 WB E	9.0	2	20	36	44.83	73	23	17.2	2	0.65
696	50 Cygni α (*Deneb*)	1.7		20	36	45.61	45	12	29.3	1	0.57
697	S Delphini Var 2	8.9	1	20	36	46.06	73	21	9.9	1	0.77
698		9.3	1	20	38	4.2[illegible]	113	3	29.6	1	0.76
699	2 Aquarii ε	4.0		20	40	15.30	99	59	12.[illegible]	1	0.6[illegible]
700	8571 Lacaille	7.7	1	20	4[illegible]	15.35	150	13	10.8	1	0.77
701	9633 Taylor	7.0	1	20	44	30.80	101	57	0.6	1	0.50
702	6 Aquarii μ	5.0		20	45	15.65	99	29	42.9	1	0.6[illegible]
703		8.9	1	20	47	35.56	119	2	5.8	1	0.77
704	32 Vulpeculæ	5.5		20	48	13.[illegible]1	62	27	11.9	2	0.68
705		9.4	1	20	53	53.28	142	50	27.0	1	0.76
706	~~R Vulpeculæ Var 2~~	10.0	2	20	58	23.33	66	~~43~~	~~54.0~~	2	0.69
707		9.8	1	20	58	30.79	118	52	55.0	1	0.77
708	9772 Taylor (1st)	7.5	1	21	0	23.07	145	7	32.1	1	0.70
709	~~67~~ Cygni (1st)	5.3		21	0	15.14	51	55	22.8	1	0.63
710	13 Aquarii ν	5.0		21	2	7.61	101	55	27.1	2	0.50
711	64 Cygni 3	3.5		21	7	6.31	60	20	1.6	6	0.71
712	8748 Lacaille	8.9	1	21	9	43.32	115	7	56.0	1	0.70
713	22 Aquarii β	3.0		21	24	20.65	96	10	20.1	11	0.71
714		9.0	1	21	25	45.04	140	28	42.6	1	0.70
715	23 Aquarii ξ	5.3		21	30	27.30	98	28	1.5	2	0.65
716	10032 Taylor	6.3	1	21	30	37.36	142	58	30.5	1	0.76
717	10065 Taylor	6.2	1	21	34	23.88	145	7	22.2	1	0.77
718	8 Pegasi ε	2.3		21	37	27.38	80	45	6.2	6	0.75
719	μ Cephei Var 1	5.4	3	21	39	18.86	31	50	51.5	3	0.72
720	16 Pegasi	5.5		21	46	49.73	64	43	7.4	8	0.76
721	10190 Taylor	6.0	1	21	51	1.58	116	32	12.3	1	0.78
722		9.7	2	21	53	45.79	150	49	38.8	2	0.74
723		9.3	1	21	58	6.61	136	2	51.4	1	0.70
724	34 Aquarii α	3.0		21	58	41.70	90	59	3.8	5	0.76
725		9.5	2	22	5	21.21	101	6	5.4	2	0.76

692.—3128 Carrington
694.—S Capricorni Var 2.—Supposed to change from 9th to 11th magnitude
697.—S Delphini Var 2.—Period 276 days.—Range 8th to 11th magnitude
706.—R Vulpeculæ Var 2.—Period 137 days.—Range 7.5 to 13th magnitude
719.—μ Cephei Var 1.—Changes irregularly from 4th to 6th magnitude

Observed with the Madras Meridian Circle in that Year

	Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
			s	s	s				
	691		+ 1.5267	− 0.0535		− 12.187	− 0.519		
	692	143 R. I. L.	− 8.3121	− 1.2551		− 12.198	+ 0.971		
	693		+ 1.8559	− 0.0712		− 12.261	− 0.561		
	694	S Capricorni Var. 2	+ 3.1136	− 0.0128		− 12.477	− 0.385		
b	695	XX 935 W B Z	+ 2.7659	+ 0.0002		− 12.672	− 0.307		
	696	50 Cygni α	+ 2.013	+ 0.0021	− 0.002	− 12.673	− 0.226	0.00	7171
	697	S Delphini Var. 2	+ 2.7632	+ 0.0002		− 12.673	− 0.307		
−0.0530	698		+ ~~4.1427~~	− ~~0.0012~~		− 12.761	− 0.195		
	699	2 Aquarii ε	+ 3.2523	− 0.0081	− 0.001	− 12.908	− 0.356	+ 0.01	7196
−0.0787	700	8571 Lacaille	+ ~~4.8119~~	− ~~0.0069~~		− 13.078	− 0.529		
	701	9633 Taylor	+ 3.2819	− 0.0093		− 13.191	− 0.355		7232
	702	6 Aquarii μ	+ 3.2399	− 0.0083	0.000	− 13.211	− 0.319	+ 0.04	7239
	703		+ 1.7306	− 0.0711		− 13.393	− 0.507		
	704	32 Vulpeculæ	+ 2.5551	+ 0.0126	− 0.002	− 13.467	− 0.270	0.00	7256
	705		+ 4.3593	− 0.0553		− 13.798	− 0.455		
	706	~~R Vulpeculæ Var. 2~~	+ 2.6621	+ 0.0022		− 14.080	− 0.271		
	707		+ 1.618	− 0.0757		− 14.085	− 0.176		
	708	9772 Taylor (1st)	+ 1.1263	− 0.0621		− 14.205	− 0.419		
	709	61 Cygni (1st)	+ 2.3337	+ 0.0014	+ 0.339	− 14.232	− 0.233	− 3.22	7336
	710	13 Aquarii ν	+ 3.2699	− 0.0098	+ 0.001	− 14.312	− 0.328	+ 0.01	7344
	711	61 Cygni	+ 2.5501	+ 0.0058	− 0.003	− 14.614	− 0.218	+ 0.07	7368
	712	8718 Lacaille	+ 1.3701	− 0.0634		− 14.770	− 0.455		
	713	22 Aquarii β	+ 3.1628	− 0.0071	− 0.001	− 15.605	− 0.282	0.00	7478
	714		+ 1.0793	− 0.0516		− 15.681	− 0.363		
	715	23 Aquarii ξ	+ 3.1930	− 0.0053	+ 0.001	− 15.931	− 0.276	+ 0.04	7514
	716	10032 Taylor	+ 4.1474	− 0.0561		− 15.911	− 0.359		7513
	717	10065 Taylor	+ 1.2103	− 0.0619		− 16.112	− 0.357		7540
	718	8 Pegasi ε	+ 2.9452	− 0.0005	+ 0.003	− 16.300	− 0.212	0.00	7561
	719	μ Cephei Var. 1	+ 1.8323	+ 0.0039		− 16.894	− 0.117		7582
	720	16 Pegasi	+ 2.7251	+ 0.0052	+ 0.001	− 16.764	− 0.210	+ 0.01	7627
	721	10190 Taylor	+ 4.1513	− 0.0695		− 16.963	− 0.316		7645
	722		+ 4.3254	− 0.0872		− 17.089	− 0.328		
	723		+ 3.7752	− 0.0430		− 17.287	− 0.272		
	724	34 Aquarii α	+ 3.0836	− 0.0041	− 0.003	− 17.311	− 0.219	+ 0.02	7688
	725		+ 3.1979	− 0.0092		− 17.598	− 0.216		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
726		7 9	1	22	9	2 21	98	2?	21 1	1	0 78
727		9 0	1	22	9	3 86	146	27	35 2	1	0 76
728	43 Aquarii θ	4 5		22	9	36 11	96	27	51 3	1	0 65
729	48 Aquarii γ	3 7		22	14	34 67	92	1	36 0	2	0 62
730		8 8	1	22	15	17 87	82	47	40 5	1	0 79
731		9 6	1	22	18	46 99	140	46	3 8	1	0 76
732	150 R P L	5 5		22	23	42 20	4	35	0 1	6	0 41
733	27 Cephei δ Var 2	5 6	4	22	24	5 38	32	17	9 6	1	0 70
734		9 8	1	22	24	36 10	146	50	51 5	1	0 76
735		8 0	1	22	25	48 37	141	30	31 5	1	0 76
736	62 Aquarii η	3 7		22	28	18 89	90	19	22 6	9	0 76
737	10477 Taylor	6 0	1	22	32	3 46	148	6	5 9	1	0 77
738	42 Pegasi ζ	3 3		22	34	37 67	79	52	59 1	4	0 79
739		6 6	1	22	87	85 40	145	46	57 5	1	0 76
740	XXII 844 W B E	8 9	1	22	40	31 06	87	48	59 4	1	0 78
741		9 1	2	22	40	48 46	142	38	20 6	2	0 82
742		9 7	2	22	44	40 08	145	33	19 6	2	0 79
743		7 9	2	22	44	46 65	148	34	51 0	2	0 81
[45 58 744	S Aquarii Var 2	8 8	2	22	49	4[illegible] 58	111	4	26 7	2	0 81
745	24 Pis Aus α (*Fomalhaut*)	1 3		22	50	4 39	120	20	51 7	8	0 81
746		9 2	1	22	51	22 53	151	33	39 0	1	0 77
747		9 3	1	22	51	47 53	85	26	50 2	1	0 78
748	9353 Lacaille	6 0	1	22	56	32 24	144	41	54 1	1	0 69
749		9 0	1	22	57	7 80	149	38	17 9	1	0 85
750	53 Pegasi β Var 1 (*Scheat*)	2 0		22	57	8 24	62	30	36 2	1	0 76
751	54 Pegasi α (*Markab*)	2 0		22	57	56 24	75	31	54 2	4	0 81
752		9 8	1	22	59	16 44	150	22	26 9	1	0 77
753	9377 Lacaille	6 5	2	23	2	8 71	151	18	22 3	2	0 82
754	90 Aquarii φ	4 7		23	7	13 63	96	47	14 0	1	0 66
755	9405 Lacaille	8 2	4	23	7	22 77	150	26	25 0	4	0 81
756	6 Piscium γ	4 3		23	10	3 75	87	27	57 7	8	0 82
757		9 8	1	23	11	2 03	151	16	3 7	1	0 77
758		8 6	1	23	11	15 10	136	54	41 3	1	0 87
759		8 5	1	23	12	4 13	137	4	14 6	1	0 69
760	96 Aquarii	5 5	1	23	12	17 65	95	52	21 1	1	0 66

732 —3820 Groombridge
733 —δ Cephei Var 2—Period 5 366 days —Range 3 7 to 4 8 magnitude
744 —S Aquarii Var 2 —Period 279 days —Range 8th magnitude to invisibility
750 —β Pegasi Var 1 —Period about 6 weeks —Range 2 0 to 2 5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
726		+ 3 1637	− 0 0077		− 17 750	− 0 207		
727		+ ~~4 0098~~	− ~~0 0055~~		− 17 751	− 0 264		
728	43 Aquarii θ	+ 3 1641	− 0 0075	+ 0 006	− 17 773	− 0 205	+ 0 03	7773
729	48 Aquarii γ	+ 3 0935	− 0 0042	+ 0 007	− 17 971	− 0 191	− 0 02	7795
730		+ 2 9975	0 0000		− 17 998	− 0 185		
731		+ 3 7720	− 0 0516		− 18 131	− 0 227		
732	150 B P L	− 3 7312	− 1 1665	+ 0 048	− 18 310	+ 0 230	− 0 05	7851
733	27 Cephei δ Var 2	+ 2 2122	+ 0 0165	+ 0 002	− 18 325	− 0 123	+ 0 02	7848
734		+ 3 8997	− 0 0676		− 18 343	− 0 221		
735		+ 3 7439	− 0 0527		− 18 385	− 0 210		
736	62 Aquarii η	+ 3 0795	− 0 0031	+ 0 003	− 18 472	− 0 166	+ 0 06	7868
737	10477 Taylor	+ 3 8773	− 0 0708		− 18 597	− 0 203		7889
738	42 Pegasi 3	+ 2 9851	+ 0 0023	+ 0 001	− 18 680	− 0 149	0 00	7908
739		+ 3 7639	− 0 0622		− 18 772	− 0 185		
740	XXII 844 W B E	+ 3 0547	− 0 0012		− 18 861	− 0 143		
741		+ 3 6652	− 0 0534		− 18 870	− 0 162		
742		+ 3 7013	− 0 0604		− 18 981	− 0 166		
743		+ 3 7776	− 0 0697		− 18 985	− 0 169		
744	S Aquarii Var 2	+ 3 2275	− 0 0140		− 19 121	− 0 184		
745	24 Piscis Aust α	+ 3 3071	− 0 0210	+ 0 022	− 19 130	− 0 135	+ 0 18	7992
746		+ 3 8003	− 0 0796		− 19 162	− 0 155		
747		+ 3 0109	+ 0 0005		− 19 174	− 0 122		
748	9353 Lacaille	+ 3 5883	− 0 0559		− 19 291	− 0 135		8029
749		+ 3 6903	− 0 0705		− 19 305	− 0 138		
750	53 Pegasi β Var 1	+ 2 8849	+ 0 0117	+ 0 014	− 19 306	− 0 106	− 0 15	8032
751	54 Pegasi α	+ 2 9797	+ 0 0056	+ 0 003	− 19 324	− 0 107	+ 0 02	8034
752		+ 3 6378	− 0 0728		− 19 355	− 0 133		
753	9377 Lacaille	+ 3 6822	− 0 0758		− 19 419	− 0 126		8061
754	90 Aquarii φ	+ 3 1084	− 0 0045	+ 0 001	− 19 525	− 0 096	+ 0 19	8085
755	9405 Lacaille	+ 3 6086	− 0 0703		− 19 529	− 0 111		8086
756	6 Piscium γ	+ 3 0591	+ 0 0005	+ 0 047	− 19 582	− 0 087	+ 0 01	8105
757		+ 3 5392	− 0 0721		− 19 599	− 0 103		
758		+ 3 3738	− 0 0382		− 19 603	− 0 098		
759		+ 3 3705	− 0 0384		− 19 618	− 0 094		
760	69 Aquarii	+ 3 1005	− 0 0038	+ 0 011	− 19 622	− 0 085	+ 0 01	8119

750—Proper Motions adopted from "*Greenwich Catalogue*"

Mean Positions of Stars for 1863 *January* 1*st,*

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*	°				
761	4040 Groombridge	7 0	1	23	12	55 84	7	3	35 0	1	0 82
762	10748 Taylor	5 9	3	23	17	29 43	147	36	3 1	3	0 83
763		9 9	1	23	19	38 74	151	38	24 2	1	0 77
764	8 Piscium κ	5 0		23	19	54 55	89	29	39 4	12	0 80
765		9 3	2	23	20	59 84	137	28	4 5	2	0 76
766		8 3	1	23	23	33 84	148	57	55 0	1	0 85
767	10804 Taylor	6 4	3	23	27	26 ~~48~~ 31	147	34	53 7	3	0 81
768		8 8	1	23	27	42 50	148	15	5 2	1	0 76
769	158 R P L	5 7		23	27	40 86	3	26	54 5	11	0 46
770		9 5	2	23	29	51 20	137	20	25 6	~~12~~	0 76 2
771		8 4	1	23	30	21 40	148	57	0 4	1	0 85
772	17 Piscium ι	4 3		23	32	54 27	85	6	58 2	11	0 80
773		9 2	1	23	34	17 16	147	27	44 8	1	0 84
774		9 2	1	23	36	33 67	106	2	41 7	1	0 74
775	δ Sculptoris	4 5		23	41	47 09	118	53	16 5	13	0 81
776		8 6	2	23	42	0 27	150	50	18 8	2	0 83
777	9638 Lacaille	7 8	2	23	46	58 37	150	18	19 5	2	0 81
778	R Cassiopeæ Var 3	9 5	1	23	51	27 44	89	22	30 2	1	0 74
779		9 4	1	23	51	55 83	143	16	18 8	1	0 87
780	28 Piscium ω	4 0		23	52	16 60	83	53	43 1	5	0 80
781	10990 Taylor	9 2	2	23	56	50 88	148	35	30 0	2	0 82
782	10994 Taylor	8 0	1	23	57	44 29	147	36	20 6	1	0 77

769 —4101 Groombridge
778 —R Cassiopeæ Var 3 —Period 426 days —Range, 5th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
761	4040 Groombridge	+ 2 1835	+ 0 0392		− 19 634	− 0 057		8122
762	10748 Taylor	+ 3 4605	− 0 0582		− 19 711	− 0 085		8157
763		+ 3 5059	− 0 0705		− 19 745	− 0 081		
764	8 Piscium κ	+ 3 0699	0 0000	+ 0 005	− 19 750	− 0 069	+ 0 12	8169
765		+ 3 3189	− 0 0375		− 19 765	− 0 074		
766		+ 3 4238	− 0 0605		− 19 802	− 0 070		
767	10804 Taylor	+ 3 3701	− 0 0555		− 19 853	− 0 060		8208
768		+ 3 3755	− 0 0572		− 19 856	− 0 060		
769	158 B P L	− 0 0318	− 0 4961	+ 0 084	− 19 858	+ 0 010	− 0 01	8213
770		+ 3 2624	− 0 0360		− 19 882	− 0 053		
771		+ 3 3585	− 0 0583		− 19 887	− 0 054		
772	17 Piscium ι	+ 3 0584	+ 0 0030	+ 0 025	− 19 916	− 0 042	+ 0 45	8233
773		+ 3 3067	− 0 0532		− 19 929	− 0 044		
774		+ 3 1110	− 0 0081		− 19 953	− 0 037		
775	δ Sculptoris	+ 3 1305	− 0 0161	+ 0 009	− 19 992	− 0 026	+ 0 10	8275
776		+ 3 2600	− 0 0589		− 19 993	− 0 028		
777	9638 Lacaille	+ 3 2052	− 0 0557		− 20 023	− 0 017		
778	R Cassiopeæ Var 3	+ 3 0114	+ 0 0364		− 20 041	− 0 007		
779		+ 3 1352	− 0 0402		− 20 042	− 0 007		
780	28 Piscium ω	+ 3 0671	+ 0 0047	+ 0 010	− 20 044	− 0 005	+ 0 13	8331
781	10990 Taylor	+ 3 1022	− 0 0482		− 20 058	+ 0 003		
782	10994 Taylor	+ 3 0930	− 0 0495		− 20 054	+ 0 005		

775 —Proper motions adopted from ‘ *Stone s Catalogue*

SEPARATE RESULTS

OF

OBSERVATIONS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1864.

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				h	*m*	*s*					
1	11010 Taylor	Nov 10	M	0	0	28 80	5	147	35	39 1	7 9
2		Nov 8	M	0	0	42 06		151	23	53 2	9 1
3	21 Andromedæ α	Oct 20	R	0	1	21 80		61	39	40 3	
		22	R		1	21 62			39	39 9	
		24	R		1	21 69			39	40 7	
		25	R		1	21 47			39	38 8	
		26	R		1	21 72			39	39 7	
		28	R		1	21 67			39	38 9	
		Nov 7	M		1	21 73			39	39 8	
		Dec 1	M		1	21 72			39	40 4	
		2	M		1	21 72			39	41 1	
4	9739 Lacaille	Sep 28	R	0	2	3 98		130	29	34 8	7 5
		Oct 5	M		2	4 07			29	37 8	7 7
5	7 Taylor	Sep 15	M	0	2	57 47		93	19	4 6	7 1
6	3 Lacaille	Nov 3	M	0	6	6 66		148	40	15 3	6 6
7	88 Pegasi γ	Oct 11	M	0	6	14 00		75	34	23 8	
		15	M		6	14 06			34	24 2	
		20	R		6	14 07			34	23 1	
		22	R		6	14 22	5		34	23 0	
		24	R		6	14 12			34	24 0	
		, 25	R		6	14 17			34	23 8	
		26	R		6	13 98			34	23 1	
		,, 28	R		6	14 08			34	22 7	
		Dec 2	M		6	14 03			34	24 0	
8		Sep 27	R	0	6	~~39 31~~ 38 34	5	131	7	0 9	9 2
		Oct 7	M		6	~~39 53~~ 38 60			7	1 4	9 7
9		Nov 5	M	0	9	22 56	5	149	31	50 5	8 7
10		Nov 8	M	0	9	33 24		153	55	6 7	9 0
		11	M		9	33 23	3		55	7 5	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s		°				
11	41 Lacaille	Sep	28	R	0	12	33 47		130	52	4 2	8 0	
		Oct	28	R		12	33 69			52	1 8	8 2	
12		Sep	27	R	0	12	47 24		150	26	39 0	8 7	
		Nov	2	M		12	47 13	3		26	38 3	8 6	
			12	M		12	47 51			26	39 0	8 9	
13	41 Piscium d	Sep	15	M	0	13	36 04		82	33	54 6	5 6	
			16	R		13	36 02			33	55 3	5 6	
14		Nov	8	M	0	18	31 22		152	57	38 5	9 0	
15	81 Lacaille	Sep	29	R	0	18	38 22		~~180~~	0	39 9	7 2	130
16	12 Ceti	Oct	24	R	0	23	5 83		94	42	34 7		
			27	R		23	5 91			42	34 1		
		Nov	5	M		23	5 79			42	34 8		
			7	M		23	5 86			42	34 0		
			11	M		23	5 87			42	35 0		
			12	M		23	5 90			42	35 8		
		Dec	2	M		23	5 88			42	35 4		
			3	M		23	5 86			42	34 8		
			5	M		23	5 88			42	33 9		
17	1 Piscium Var 3	Oct	28	R	0	24	57 60	3	76	9	0 4	10 5	
18		Aug	19	R	0	27	7 96		76	14	7 7	8 0	
		Sep	27	R		27	7 88			14	7 9	8 5	
		Oct	15	M		27	7 74			14	8 7	8 0	
19	132 Lacaille	Nov	8	M	0	27	18 38	6	151	53	55 9	9 0	
20	970 Lalande	Dec	6	M	0	31	4 54	5	80	55	9 4	7 7	
21	1010 Lalande	Oct	24	R	0	32	15 52		82	32	27 6	9 5	
		Nov	2	M		32	15 40			32	27 2	9 1	
22	18 Cassiopeæ α Var 2	Dec	3	M	0	32	48 ~~14~~ 43		34	12	34 7		48 43

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
						h	m	s						
	23	16 Ceti β	Oct	22	R	0	36	45 69		108	44	1 3		
				24	R		36	45 64			44	2 0		
			Nov	3	M		36	45 64			44	0 7		
				7	M		36	45 77			44	0 0		
				11	M		36	45 59			44	1 2		
			Dec	2	M		36	45 64			44	2 3		
				3	M		36	45 61			44	1 7		
				5	M		36	45 69			44	1 1		
				6	M		36	45 68			44	1 5		
				7	M		36	45 59			44	1 2		
				8	M		36	45 62			44	2 0		
	24	0 628 W B E	Nov	5	M	0	36	54 12	4	93	49	29 9		
	25		Nov	8	M	0	39	53 91	5	150	44	54 3	8 9	
				12	M		39	54 09			44	55 0	9 1	
56 04	26	58 Piscium	Oct	13	M	0	39	~~55 34~~ 6 02		78	46	8 8	5 0	
	27	63 Piscium δ	Aug	19	R	0	41	37 83	4	83	9	21 1		
			Oct	13	M		41	37 56	3		9	22 4		
				14	M		41	37 62			9	21 1		
	28	253 Lacaille	Nov	8	M	0	47	57 75	3	153	36	39 3	6 0	
	29		Dec	9	M	0	48	55 25	5	153	49	48 6	9 6	
	30	2 Ursæ Minoris s p	May	12	M	0	50	44 24	2	4	~~29~~	28 9		28
			Nov	2	M		50	44 40	3		28	29 9		
	31	0 897 W B E	Nov	7	M	0	52	12 41		92	49	54 4	9 3	
			Dec	5	M		52	12 35	6		49	54 9	9 0	
			,	6	M		52	12 25	3		49	56 1	9 2	
	32	271 Lacaille	Nov	12	M	0	52	42 54		151	25	58 2	7 5	
59 92	33	14 R P L s p	May	21	M	0	53	~~58 25~~ 59 92	2	3	34	53 8		
	34	70 Piscium	Dec	1	M	0	55	2 48		82	47	38 2	6 9	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star		Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s		°			
35	71 Piscium ε		Jan	1	M	0	55	53 10		82	50	35 7	
				2	M		55	53 16			50	34 5	
				4	M		55	53 23			50	35 5	
			Sep	16	R		55	53 34			50	35 1	
			Nov	10	M		55	53 09			50	35 5	
				11	M		55	53 24			50	35 6	
				29	R		55	53 20			50	35 8	
			Dec	8	M		55	53 33	2		50	34 7	
36	29 Ceti		Nov	5	M	1	0	58 99		88	43	8 5	6 7
37	33 Ceti		Jan	1	M	1	3	33 49		88	16	45 8	
				2	M		3	33 63			16	46 5	
				4	M		3	33 55			16	45 9	
(14T) 38	86 Piscium 3		Sep	16	R	1	6	37 49		83	8	35 6	
			Nov	11	M		6	37 67			8	41 9	
39	1 Urs Min α	s p	Apl	2	M	1	9	18 81	2	2	24	55 5	
		s p		6	M		9	17 85	3		24	56 0	
		s p		16	R		9	18 06	3		24	56 3	
		s p	,	26	R		9	19 09	3		24	57 4	
		s p	May	5	R		9	18 18	3		24	56 4	
		s p		28	R		9	18 54	3		24	57 5	
			Oct	27	R		9	17 96	3		24	56 9	
			Nov	22	R		9	17 88	3		24	57 0	
40			Oct	27	R	1	17	0 20	3	96	31	27 6	8 0
			Dec	3	M		17	0 17			31	24 9	8 2
41	45 Ceti θ¹		Jan	1	M	1	17	13 48		98	53	11 2	
				2	M		17	13 53			53	11 1	
				4	M		17	13 48			53	11 1	
			Nov	12	M		17	13 55			53	11 6	
				29	R		17	13 57			53	12 3	
			Dec	6	M		17	13 43			53	12 1	
42			Dec	5	M	1	18	53 11		151	20	23 0	7 6

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
43		Nov	2	M	1	23	28 19		87	43	58 8	8 2
44	99 Piscium η	Jan	1	M	1	24	12 69		75	21	24 9	
			2	M		24	12 59			21	24 6	
			4	M		24	12 53			21	24 6	
		Oct	14	M		24	12 66			21	24 8	
		,	15	M		24	12 47			21	25 2	
		Nov	22	R		24	12 55			21	24 8	
			29	R		24	12 55			21	25 0	
		Dec	1	M		24	12 57			21	24 3	
			8	M		24	12 41			21	25 5	
			9	M		24	12 49			21	25 4	
45		Nov	12	M	1	25	44 66		150	21	41 4	8 6
46	514 Taylor	Dec	2	M	1	28	33 66		73	15	51 2	6 0
			3	M		28	33 51			15	51 3	6 1
47		Dec	5	M	1	29	1 31		150	42	35 1	9 0
48		Nov	23	R	1	31	23 00		180	52	~~19 2~~	8 0
49	α Eridani (*Achernar*)	Nov	22	R	1	32	38 91		147	55	45 7	
			29	R		32	38 93			55	45 2	
		Dec	20	R		32	38 91			55	45 8	
50	106 Piscium ν	Oct	17	R	1	34	21 35		85	12	7 7	
		Nov	7	M		34	21 16			12	7 4	
		,	24	R		34	21 32			12	7 0	
		Dec	1	M		34	21 29			12	8 1	
			3	M		34	21 29			12	7 6	
			6	M		34	21 30			12	7 9	
51	503 Lacaille	Nov	5	M	1	35	42 98		151	41	18 8	7 7
52	110 Piscium ο	Oct	14	M	1	38	12 88	5	81	31	42 7	
			15	M		38	12 70			31	42 9	
		Dec	8	M		38	12 74			31	42 7	
			9	M		38	12 79			31	42 4	

17″ 8

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	*m*	*s*		°	′	″		
53		Dec	10	M	1	38	33 55	5	152	2	52 8	9 1	
54	516 Lacaille	Nov	11	M	1	39	58 43		151	42	9 3	7 0	
			23	R		39	58 35			42	9 0	7 0	
55		Nov	7	M	1	46	9 24 39		148	57	57 1	9 4	9 39
56	~~V Piscium Var. 5~~	Nov	29	R	1	47	7 59	8	81	53	9 4	10 0	
57	6 Arietis β	Oct	17	R	1	47	7 86		69	51	31 8		
		Nov	14	M		47	7 90			51	31 8		
			22	R		47	7 93			51	32 0		
			24	R		47	7 85			51	31 5		
			25	R		47	7 92			51	31 2		
		Dec	1	M		47	7 87			51	32 2		
			3	M		47	7 95			51	31 5		
58		Nov	5	M	1	48	32 60		150	5	13 2	9 3	
		Dec	5	M		48	33 01	5		5	13 7	9 3	
59	582 Lacaille	Dec	10	M	1	50	54 77		145	44	21 5	8 1	
60	593 Lacaille	Jan	4	M	1	52	2 53	5	149	8	13 6		
61		Oct	22	R	1	54	52 42		130	55	42 3	9 0	
		Nov	24	R		54	52 62			55	41 3	9 0	
62	673 Taylor	Nov	12	M	1	56	15 31		72	24	8 3	6 0	
63		Nov	5	M	1	59	23 41		150	2	30 2	9 3	
		Dec	5	M		59	23 62			2	32 7	9 3	
64	13 Arietis α	Oct	17	R	1	59	30 68		67	10	58 6		
		Nov	14	M		59	30 64			10	58 5		
			22	R		59	30 70			10	58 3		
			23	R		59	30 63			10	58 5		
			24	R		59	30 65			10	57 7		
		Dec	6	M		59	30 72			10	58 0		
			10	M		59	30 67			10	58 1		

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
65	697 Taylor	Jan	4	M	2	1	45 88		145	43	57 4	6 7
66		Oct	22	R	2	1	54 99		130	2	27 4	9 3
			26	R		1	55 02			2	29 2	9 3
67	677 Lacaille	Oct	24	R	2	6	55 77		149	47	35 4	8 0
68		Oct	26	R	2	6	58 76		148	39	29 4	9 7
69	754 Taylor	Jan	4	M	2	9	11 61		147	58	52 3	8 8
		Nov	29	R		9	11 89	5		58	55 1	9 0
70	67 Ceti	Nov	11	M	2	10	12 07		97	3	3 2	
			23	R		10	12 05			3	3 3	
			24	R		10	12 12			3	2 5	
			25	R		10	12 00			3	1 4	
		Dec	5	M		10	12 03			3	3 4	
		,	9	M		10	12 04			3	3 5	
			20	R		10	12 07			3	2 2	
71	68 Ceti o Var 1 (*Mira*)	Jan	6	M	2	12	28 65		93	35	54 9	6 5
		Oct	22	R		12	28 67			35	51 5	8 2
			24	R		12	28 71			35	50 2	8 0
72		Dec	6	M	2	16	23 72		151	18	24 7	8 0
73	818 Taylor	Jan	4	M	2	19	8 13		147	25	59 7	7 5
74		Jan	7	M	2	20	10 55	4	146	32	42 3	
		Nov	29	R		20	10 81			32	44 0	
75	73 Ceti ξ²	Jan	5	M	2	20	55 85		82	9	5 3	
			6	M		20	55 79			9	4 9	
		Nov	14	M		20	55 91			9	6 3	
			22	R		20	55 80	4		9	6 0	
		,	25	R		20	55 83			9	5 2	
		Dec	9	M		20	55 80			9	5 6	
		,	10	M		20	55 89			9	5 0	
			17	R		20	55 77			9	5 7	
			20	R		20	55 81			9	4 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*					
76	λ Horologii	Dec	5	M	2	21	6 12		150	55	20 6	6 0
77		Dec	13	M	2	24	27 94		147	2	45 3	8 2
78	782 Lacaille	Jan	11	M	2	26	12 97		148	24	54 3	7 8
		Nov	11	M		26	13 41	5		24	55 7	7 0
79		Nov	29	R	2	29	10 94	5	147	37	29 6	9 5
80	31 Arietis	Dec	9	M	2	29	12 91		78	8	40 2	
		,	10	M		29	12 97	5		8	39 8	5 5
81		Jan	4	M	2	30	45 22		147	34	54 3	9 8
		Nov	24	R		30	45 57			34	54 6	9 7
82		Dec	5	M	2	31	15 88	6	151	39	24 0	9 6
83	II 556 W B N	Nov	23	R	2	33	10 17		74	53	59 9	8 5
			29	R		33	10 25	5		54	0 0	9 0
84		Nov	10	M	2	33	59 16		74	56	35 3	8 7
85	849 Lacaille (1st)	Jan	5	M	2	36	0 55		150	9	10 0	7 9
86	86 Ceti γ	Jan	7	M	2	36	15 50		87	20	22 1	
			11	M		36	15 49			20	22 6	
		Nov	8	M		36	15 30			20	22 1	
			14	M		36	15 33			20	22 6	
			25	R		36	15 31			20	22 3	
		Dec	12	M		36	15 22			20	22 7	
		,	13	M		36	15 31			20	22 9	
			17	R		36	15 36			20	23 6	
87	38 Arietis	Oct	15	M	2	37	33 03		78	7	44 1	5 1
		Dec	9	M		37	~~[illegible]~~ 33 16			7	44 6	
			10	M		37	33 17			7	43 2	5 0
88	II 676 W B N	Nov	4	M	2	40	8 21		75	20	24 7	7 9
			23	R		40	8 17	5		20	24 9	8 0
		Dec	23	R		40	8 03			20	23 8	8 3

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	*m*	*s*						
	89	42 Arietis π	Jan 6	M	2	41	42 75		73	6	14 3	5 2	
			Oct 15	M		41	42 41	4		6	17 1	5 6	
	90		Jan 4	M	2	43	17 76	4	148	0	37 3	8 7	
			15	M		43	18 04	5		0	37 0	8 9	
	91	II 733 W B E	Nov 23	R	2	43	19 18	5	76	2	13 3	9 5	
			24	R		43	19 12			2	12 7	9 5	
	92		Jan 12	M	2	45	15 73	3	76	27	53 8	9 2	
	93	969 Taylor	Nov 10	M	2	45	37 51		74	4	28 1	7 4	
			Dec 2	M		45	37 46			4	28 4	7 5	
	94	87 Rumker	Dec 5	M	2	46	0 94	5	153	22	19 5	5 9	
	95	5380 Lalande	Nov 23	R	2	47	42 04		74	14	41 8	8 0	
			24	R		47	42 00			14	41 0	8 2	
	96	941 Lacaille	Jan 7	M	2	50	26 42	5	146	26	~~7 4~~	6 3	5 8
			11	M		50	26 47	5		26	6 0	6 7	
	97		Jan 5	M	2	52	21 64		150	17	8 5	8 6	
	98		Dec 13	M	2	53	15 55	4	146	44	28 5	8 4	
	99	969 Lacaille	Jan 15	M	2	54	53 50		144	13	57 3	7 9	
	100	92 Ceti α	Jan 7	M	2	55	10 37		86	26	46 3		
			Nov 21	R		55	10 32			26	47 0		
			23	R		55	10 38			26	46 5		
			Dec 7	M		55	10 17			26	46 2		
			9	M		55	10 33			26	46 3		
			12	M		55	10 35			26	46 6		
			23	R		55	10 29			26	47 0		
18 54	101	ρ Persei Var 2	Jan 6	M	2	56	~~27 54~~	4	51	41	23 1		
	102	1037 Taylor	Jan 11	M	2	56	53 97	5	150	21	35 5	9 3	
			12	M		56	54 23			21	33 8	9 1	

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s		°	′	″		
1793	103	β Persei Var 1	Nov 4	M	2	59	~~20 60~~	5	49	34	17 7		
1969			29	R		59	~~20 41~~			34	17 0		
	104	1047 Taylor	Jan 18	M	2	59	51 39	5	151	19	52 9	6 8	
			Dec 23	R		59	51 61	3		19	53 5	7 8	
	105	1052 Taylor	Jan 16	M	3	0	25 00	5	150	16	1 7	6 0	
	106	33 R P L s p	June 4	R	3	0	42 11	5	5	34	52 8		
	107	57 Arietis δ	Nov 21	R	3	3	51 30		70	47	25 0		
			23	R		3	51 33	5		47	26 3		
			29	R		3	51 32	4		47	26 3		
			30	R		3	51 35			47	26 5		
			Dec 5	M		3	51 35			47	25 2		
			7	M		3	51 45			47	26 8		
			10	M		3	51 35			47	25 9		
			12	M		3	51 35			47	26 5		
			21	R		3	51 26			47	25 9		
	108	1007 Lacaille	Jan 19	M	3	4	~~48 78~~		152	14	28 7	7 0	47
	109	1092 Taylor	Jan 11	M	3	7	15 46		148	19	28 9	7 1	
			15	M		7	15 63			19	28 1	6 7	
			Dec 6	M		7	15 60	6		19	31 1	7 0	
	110		Dec 13	M	3	7	16 15	3	145	40	32 5	9 0	
	111		Jan 12	M	3	12	41 14	5	130	50	15 5	8 6	
	112	33 Persei α	Nov 24	R	3	14	37 52		40	37	34 4		
			25	R		14	37 61			37	35 3		
			Dec 16	R		14	37 59			37	33 8		
	113		Jan 16	M	3	14	51 02	5	150	6	18 7	9 0	
	114	3[a] Reticuli	Jan 19	M	3	15	15 79	5	153	1	37 7	5 9	
			28	R		15	15 62	4		1	38 2	6 3	
	115		Jan 5	M	3	20	18 17		149	18	56 3	7 8	

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
	116		Jan	15	M	3	20	34 44	5	149	28	28 7	7 3
				18	M		20	34 25			28	30 8	7 4
	117		Jan	7	M	3	22	0 03		88	12	26 3	7 5
	118	34 R P L	Jan	4	M	3	22	14 89	3	3	47	26 9	
			Nov	22	R		22	16 53	3		47	25 1	
			Dec	20	R		22	17 31	3		47	29 5	
	119	1143 Lacaille	Jan	19	M	3	27	0 48	5	153	25	6 9	5 7
				21	M		27	0 86	3		25	6 0	
[27 56]	120	1150 Lacaille	Dec	14	M	3	28	26 56	3	152	28	17 6	7 7
7	121	1159 Lacaille	Jan	20	M	3	30	16 54		151	28	33 8	6 7
				28	R		30	16 11			28	31 9	7 0
	122	1192 Lacaille	Jan	11	M	3	34	58 48		147	43	46 9	8 5
	123	1193 Lacaille	Jan	5	M	3	35	15 49		146	35	14 0	8 1
	124	1200 Lacaille	Jan	7	M	3	36	24 51		146	40	31 5	
				28	R		36	24 26	5		40	30 2	6 9
21	125	17 Tauri (*Electra*)	Jan	6	M	3	~~37~~	48 28		66	18	59 2	
	126	25 Tauri η (*Alcyone*)	Jan	18	M	3	39	24 34		66	19	7 2	
			,	19	M		39	24 26			19	7 9	
			Oct	17	R		39	24 25			19	8 0	
			Nov	16	R		39	24 27			19	7 2	
				21	R		39	24 17			19	7 4	
				30	R		39	24 22			19	7 7	
			Dec	10	M		39	24 27			19	7 1	
				16	R		39	24 26			19	7 4	
				21	R		39	24 23			19	6 0	
				22	R		39	24 17			19	7 6	
				23	R		39	24 09			19	6 9	
Taylor	127	~~θ Reticuli~~	Jan	20	M	3	42	30 23		155	14	9 2	5 7
			,	27	R		42	30 06	5		14	7 5	5 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
128		Nov	24	R	3	45	11 82		76	27	48 7	9 0
129		Jan	5	M	3	46	32 44		146	33	38 2	8 8
			11	M		46	32 32			33	39 9	8 7
130		Jan	7	M	3	48	3 85	5	150	50	17 3	8 0
			12	M		48	3 62			50	15 8	8 6
131	34 Eridani γ^1	Jan	6	M	3	51	41 11		103	53	52 9	
			15	M		51	41 11			53	52 0	
		Nov	16	R		51	41 07			53	52 4	
			21	R		51	41 18			53	52 6	
			30	R		51	41 07	5		53	52 7	
		Dec	21	R		51	41 18	5		53	52 9	
			22	R		51	41 11			53	52 4	
			23	R		51	41 18	5		53	53 0	
132	λ Tauri Var 1	Jan	29	R	3	53	8 92		77	53	48 7	6 3
133		Jan	5	M	3	53	40 29	5	143	8	23 6	7 9
134	1327 Lacaille	Jan	22	M	3	54	18 80		153	51	27 3	5 8
		,	23	M		54	18 90	3		51	28 3	6 0
		Dec	2	M		54	18 86			51	29 6	6 0
135	36 Tauri	Dec	5	M	3	56	13 88		66	16	18 6	6 5
		,	6	M		56	13 77			16	19 0	6 5
		,	7	M		56	13 63	5		16	18 5	6 5
		,	8	M		56	13 66	4		16	19·1	6 5
			9	M		56	13 71	1		16	18 9	6 5
			10	M		56	13 72	4		16	18 2	6 5
		,	12	M		56	13 92			16	19 5	
		,	13	M		56	14 01	3		16	19 4	
			14	M		56	13 81			16	18 6	6 5
			16	R		56	13 92	4		16	19 3	
136	37 Tauri A^1	Oct	17	R	3	56	39 51		68	17	36 3	
137	1347 Lacaille	Jan	11	M	3	58	6 93		149	2	35 3	7 9
		„	16	M		58	6 81			2	34 3	7 2

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
138	1359 Lacaille	Jan	7	M	4	0	0 83		147	50	5 9	8 7
		„	27	R		0	0 59			50	2 4	9 7
139	1375 Lacaille	Jan	15	M	4	2	54 42		148	50	46 0	8 9
		„	28	R		2	54 31			50	45 5	9 0
140		Jan	30	R	4	3	23 80	5	68	30	18 3	9 8
141	37 Eridani	Jan	5	M	4	3	44 58		97	16	55 3	5 6
142		Jan	6	M	4	5	0 07		150	5	33 3	8 7
			12	M		5	0 27	5		5	31 8	8 8
143	38 Eridani o^1	Jan	27	R	4	5	13 64		97	11	41 0	
		„	29	R		5	13 72			11	40 9	
		Nov	16	R		5	13 59	5		11	42 2	
144		Jan	16	M	4	9	18 82		149	31	9 8	8 3
			20	M		9	18 58	5		31	9 8	8 6
145		Nov	22	R	4	9	46 60		1°9	18	57 0	8 0
146	1489 Taylor	Jan	7	M	4	11	2 58		148	22	0 7	6 9
			11	M		11	2 73			21	59 7	7 3
147	1425 Lacaille	Jan	21	M	4	13	1 45		152	32	4 7	5 9
		„	27	R		13	1 17			32	1 2	6 5
148	U Tauri Var 7	Nov	24	R	4	13	58 65		70	30	42 4	9 7
149	T Tauri Var 6	Jan	28	R	4	14	3 74	4	70	47	24 9	10 5
		„	30	R		14	3 94			47	27 1	10 2
150	ε Reticuli	Jan	12	M	4	14	8 76		149	37	48 1	5 0
		„	15	M		14	8 73	5		37	48 3	5 0
151	1513 Taylor	Feb	3	M	4	14	18 37	5	151	17	2 3	6 8
		Nov	23	R		14	18 14	3		17	3 0	6 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
152	61 Tauri δ^1	Jan	18	M	4	15	5 64		72	46	48 2	
			19	M		15	5 61			46	47 9	
		Oct	17	R		15	5 58			46	48 7	
153	62 Tauri	Dec	21	R	4	15	47 95		66	1	12 1	
		,	22	R		15	47 84			1	10 0	
154		Jan	6	M	4	16	45 55		149	4	26 5	8 8
155	69 Tauri υ^1	Dec	1	M	4	18	10 43		67	29	55 7	
			2	M		18	10 42			29	56 5	
		,	12	M		18	10 30			29	56 3	
		,	14	M		18	10 28			29	55 1	
		,,	15	R		18	10 47			29	54 8	
		,	16	R		18	10 38			29	54 7	
		,	17	R		18	10 36			29	55 1	
156	74 Tauri ϵ	Jan	5	M	4	20	40 64	5	71	7	28 9	
		,,	7	M		20	40 60			7	29 0	
		,,	11	M		20	40 70			7	28 7	
		,,	12	M		20	40 79			7	29 1	
		,,	15	M		20	40 80			7	29 3	
		,	16	M		20	40 63			7	28 2	
		,	18	M		20	40 71			7	30 3	
		,	19	M		20	40 66			7	29 3	
		Oct	17	R		20	40 69			7	31 0	
		Dec	13	M		20	40 80			7	30 0	
		,,	16	R		20	40 70			7	29 6	
		,,	22	R		20	40 66			7	29 1	
		,	23	R		20	40 63			7	29 5	
157	R Tauri Var 2	Jan	29	R	4	20	51 25	4	80	8	38 1	10 0
		Feb	1	R		20	50 89	4		8	37 2	9 7
158		Jan	30	R	4	22	21 53	5	80	21	15 0	10 3 rejected
		Nov	24	R		22	21 81			21	14 4	10 0
159	1582 Taylor	Jan	21	M	4	23	12 66	5	151	32	49 3	6 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
160	1519 Lacaille	Jan	20	M	4	25	35 43		153	6	7 6	8 0
		Feb	2	R		25	35 40	5		6	5 6	8 3
161	1520 Lacaille	Jan	6	M	4	26	41 04		147	29	2 1	8 6
		Dec	7	M		26	41 09	2		29	2 7	8 2
162	87 Tauri α (*Aldebaran*)	Jan	5	M	4	28	7 21		73	46	4 1	
		,	11	M		28	7 17			46	4 0	
		"	12	M		28	7 17			46	3 9	
			15	M		28	6 98			46	4 7	
			16	M		28	7 16			46	2 8	
		Feb	5	R		28	7 15			46	2 3	
		Dec	12	M		28	7 20			46	4 2	
			13	M		28	7 26			46	3 1	
		,	16	R		28	7 11			46	3 4	
163	R Reticuli Var 1	Feb	9	M	4	32	8 35		153	18	40 4	8·5
164	IV 696 W B N	Dec	13	M	4	32	36 08		66	27	30 3	9 0
			15	R		32	36 17			27	29 8	9 0
		,	21	R		32	35 97	6		27	30 7	9 5
		"	22	R		33	35 90	5		27	29 9	9 2
165		Jan	7	M	4	33	32 32		144	53	49 8	8 5
		"	21	M		33	32 49	5		53	50 6	8 5
166	IV 726 W B N	Nov	24	R	4	33	50 91		66	15	17 6	8 0
		"	25	R		33	50 93			15	17 2	
			29	R		33	50 98			15	18 1	
		Dec	16	R		33	50 93	5		15	17 3	
		"	17	R		33	50 98			15	16 9	8 2
		,	22	R		33	50 86	5		15	17 2	8 0
167	94 Tauri τ	Dec	1	M	4	34	5 16	5	67	18	27 9	
			2	M		34	5 22			18	27 7	
		,	6	M		34	5 05			18	27 2	
		,	7	M		34	4 99	4		18	28 0	
		,	8	M		34	4 97			18	28 1	
		,	9	M		34	4 98			18	27 5	
			10	M		34	5 01			18	27 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
168	95 Tauri	Nov	23	R	4	35	0 01	3	66	10	22 0	6 5
169	1567 Lacaille	Jan	22	M	4	35	11 25		152	20	46 8	5 6
			23	M		35	11 05			20	46 4	5 7
		Feb	3	M		35	11 20	2		20	47 8	6 2
170	1566 Lacaille	Jan	6	M	4	35	46 00		148	28	26 3	7 3
171	1663 Taylor	Jan	15	M	4	36	50 08		138	48	8 3	7 9
172	1582 Lacaille	Jan	20	M	4	37	18 87	5	152	38	44 3	7 7
			28	R		37	~~13 35~~ 18 35 7			38	42 5	9 2
173		Jan	16	M	4	40	19 36		151	20	52 4	8 7
			27	R		40	19 09	5		20	52 7	9 8
174	κ Doradûs	Jan	7	M	4	42	18 41	3	149	59	1 5	6 0
			11	M		42	18 49			58	59 9	6 5
		Feb	9	M		42	18 40			59	0 3	6 5
175	1629 Lacaille	Jan	21	M	4	43	42 96	5	153	28	32 3	6 0
		Feb	4	R		43	42 96			28	33 0	7 0
176	IV 995 W B N	Nov	24	R	4	45	6 60		66	3	10 3	8 2
		Dec	1	M		45	6 66			3	10 5	8 0
		,	2	M		45	6 55			3	10 3	8 0
		,	7	M		45	6 50			3	9 7	8 0
		,	8	M		45	6 51			3	9 3	8 0
			9	M		45	6 47			3	10 3	7 9
			10	M		45	6 54	4		3	9 1	8 0
			14	M		45	6 65	5		3	9 2	8 0
			22	R		45	6 57			3	9 5	
177		Feb	10	M	4	45	55 56		153	4	2 2	8 8
178	IV 1018 W B N	Nov	23	R	4	45	58 88		66	13	39 8	
			25	R		45	58 66			13	39 2	
			29	R		45	58 60			13	39 7	
		Dec	6	M		45	58 58	4		13	38 1	8 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s				″	
178	IV 1018 W B N	Dec	13	M	4	45	58 65		66	13	39 9	8 0
			15	R		45	58 74			13	39 5	8 5
			17	R		45	58 65	5		13	39 4	8 2
			20	R		45	58 67	5		13	39 2	
			21	R		45	58 62			13	39 8	8 3
179	1656 Lacaille	Jan	15	M	4	47	56 28		149	1	59 9	7 9
			20	M		47	55 98	5		2	1 7	7 8
			21	M		47	55 92	3		2	1 8	7 9
180	3 Aurigæ ι	Jan	6	M	4	48	8 12		57	3	12 5	
			12	M		48	8 34			3	11 9	
			22	M		48	8 49			3	12 3	
			23	M		48	8 43			3	11 7	
		,	28	R		48	8 45			3	10 6	
		Feb	5	R		48	8 48			3	11 1	
			8	R		48	8 55			3	10 8	
			12	M		48	8 41			3	11 9	
181	99 Tauri	Nov	16	R	4	49	33 66		66	16	3 3	
			21	R		49	33 63	6		16	3 8	
			22	R		49	33 62	6		16	2 4	
			23	R		49	33 75	5		16	4 4	
			25	R		49	33 77	4		16	3 5	
			29	R		49	33 58			16	3 7	
182	1761 Taylor	Jan	11	M	4	49	59 57		129	18	38 7	7 1
183	1780 Taylor	Jan	7	M	4	52	15 36		144	38	49 0	7 5
184		Jan	5	M	4	52	18 70		129	39	52 4	9 0
185		Dec	14	M	4	52	40 71		150	37	52 6	9 1
186	1797 Taylor	Jan	15	M	4	54	51 54		148	16	56 6	6 8
		,	16	M		54	51 26			16	58 5	6 7
187	102 Tauri ι	Feb	10	M	4	54	58 24	5	68	36	28 0	5 0
		,	16	R		54	58 12			36	29 3	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*		°			
188	1697 Lacaille	Feb	2	R	4	56	51 21	5	129	7	11 5	8 7
189	1811 Taylor	Jan	18	M	4	57	2 80		129	55	3 5	6 0
190	1705 Lacaille	Jan	20	M	4	57	25 62		129	16	33 4	7 7
			29	R		57	25 51			16	32 2	
		Dec	17	R		57	25 70			16	34 7	8 0
191	104 Tauri *m*	Feb	16	R	4	59	24 97	5	71	32	28 9	
192	2 Leporis ε	Jan	19	M	4	59	42 18		112	33	23 7	
		,	27	R		59	42 23			33	21 5	
			28	R		59	42 19			33	21 5	
		Feb	11	M		59	42 31			33	23 0	
			12	M		59	42 18			33	22 1	
193	103 Tauri	Nov	16	R	4	59	49 43		65	55	7 3	
			21	R		59	49 38			55	6 4	
			23	R		59	49 43	3		55	7 5	
		,	25	R		59	49 45			55	6 9	
194	1739 Lacaille	Jan	7	M	5	2	51 42		146	57	53 9	8 4
		Dec	22	R		2	51 39			57	53 5	8 7
195	13 Aurigæ α (*Capella*)	Jan	23	M	5	6	38 82		44	8	40 5	
		,	29	R		6	38 67			8	40 0	
196	19 Orionis β (*Rigel*)	Jan	18	M	5	7	59 98		98	21	43 2	
		,	20	M		8	0 13			21	43 3	
			21	M		8	0 20			21	42 7	
			27	R		8	0 13			21	41 6	
			28	R		8	0 13			21	42 5	
		Feb	13	M		8	0 16			21	41 1	
		Dec	14	M		8	0 22			21	42 5	
197		Jan	15	M	5	8	29 40		150	36	21 0	9 2
		Feb	3	M		8	29 43	3		36	20 6	9 0
198		Nov	24	R	5	10	55 76		129	48	31 6	9 2
		Dec	23	R		10	55 46	4		48	31 8	9 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
199		Jan	19	M	5	13	25 23	5	153	41	45 5	7 9
			29	R		13	25 15			41	42 6	
200		Feb	15	M	5	14	50 32	5	153	29	22 4	8 0
201		Jan	20	M	5	17	37 82	5	153	7	21 9	8 2
		Feb	2	R		17	37 76			7	18 0	8 5
202	112 Tauri β	Jan	16	M	5	17	41 80		61	30	41 5	
		Feb	12	M		17	41 83			30	41 5	
		Dec	14	M		17	41 76			30	42 0	
203	40 R P L s p	June	16	R	5	18	45 12	3	4	53	3 4	
204	1984 Taylor	Jan	21	M	5	18	51 39	5	150	54	50 3	7 9
		Feb	4	R		18	51 29	4		54	50 7	7 3
205		Feb	3	M	5	19	4 78		148	14	18 4	9 0
206		Jan	18	M	5	19	45 66		131	3	54 0	9 3
207		Jan	27	R	5	21	42 30	5	59	41	0 6	10 0
		,	30	R		21	42 49	3		41	0 3	10 3
208		Jan	22	M	5	22	35 24		152	42	6 4	6 5
		Feb	15	M		22	35 26	4		42	6 1	8 2
209	λ Doradûs	Jan	15	M	5	24	20 65	3	149	1	42 6	6 1
		Dec	9	M		24	20 45			1	44 9	6 0
210	34 Orionis δ	Jan	23	M	5	25	3 49		90	24	10 1	
		,	29	R		25	3 61			24	10 9	
		Feb	2	R		25	3 63			24	8 4	
211	11 Leporis α	Feb	4	R	5	26	44 07		107	55	19 4	
		Dec	21	R		26	43 96			55	21 0	
212	46 Orionis ε	Jan	29	R	5	29	18 84		91	17	32 2	
		Feb	2	R		29	18 83			17	28 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
212	46 Orionis ε	Feb	3	M	5	29	18 91		91	17	31 4	
		,	8	R		29	18 87			17	31 2	
			16	R		29	18 79			17	32 5	
213	128 Tauri 3	Jan	19	M	5	29	30 98		68	56	40 3	
			20	M		29	31 34			56	40 0	
		Dec	12	M		29	30 94			56	39 9	
			13	M		29	31 23			56	40 0	
214		Jan	15	M	5	30	59 54	3	150	13	1 6	7 0
		Dec	17	R		30	59 34	4		13	4 1	
215	1949 Lacaille	Jan	22	M	5	32	15 80		154	19	4 4	6 2
216		Jan	7	M	5	32	42 28	6	150	11	35 1	8 9
		Feb	15	M		32	42 66	5		11	34 6	8 3
		Dec	17	R		32	42 42	4		11	36 4	
217	α Columbæ	Feb	1	R	5	34	43 58		124	8	55 4	
		,	2	R		34	43 53			8	52 6	
		,	3	R		34	43 53	3		8	55 2	
		,	4	R		34	43 54			8	56 1	
		,	8	R		34	43 46			8	56 5	
		Dec	15	R		34	43 45			8	56 0	
218	2113 Taylor	Jan	5	M	5	35	8 22		130	45	35 4	8 5
219	1971 Lacaille	Jan	11	M	5	36	21 37		149	11	31 9	7 0
		Feb	9	M		36	21 57			11	31 7	7 1
220		Jan	28	R	5	36	43 56		120	57	50 9	9 6
221	2184 Taylor	Feb	11	M	5	43	54 43	4	150	46	23 9	8 8
		Dec	23	R		43	54 56	3		46	25 2	9 3
222		Jan	19	M	5	44	9 32		152	58	5 0	9 0
		Feb	2	R		44	9 73			58	0 0	9·2
223	54 Orionis χ^1	Dec	12	M	5	46	19 65		69	45	11 2	
		,	13	M		46	19 74			45	12 4	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
224	α Orionis Var 1	Jan	23	M	5	47	48 67		82	37	17 9	
		Feb	3	M		47	48 52			37	17 2	
		Dec	14	M		47	48 55			37	17 1	
			15	R		47	48 64			37	18 4	
225		Feb	9	M	5	49	28 27		63	50	11 1	9 5
		Dec	21	R		49	28 58			50	14 7	9 2
226		Feb	2	R	5	49	36 83	5	130	1	18 6	9 7
227	43 R P L *s p*	Aug	11	M	5	52	0 00	3	3	14	22 0	
228		Jan	20	M	5	52	41 05		129	32	33 9	9 0
229		Dec	22	R	5	53	1 65		130	24	59 2	8 8
230	64 Orionis χ^3	Feb	16	R	5	55	24 35		70	18	40 6	
		,,	17	R		55	24 38	5		18	40 9	
231	62 Orionis χ^4	Feb	10	M	5	55	50 82		69	51	42 9	5 0
232	2301 Taylor	Feb	3	M	5	58	29 56	3	148	6	17 9	6 5
233	2310 Taylor	Jan	7	M	5	59	37 50	5	150	29	7 1	6 7
			12	M		59	37 55			29	6 5	6 9
234	67 Orionis ν	Feb	1	R	5	59	48 52		75	13	7 6	
		,,	9	M		59	48 51			13	7 7	
			11	M		59	48 42			13	7 7	
		,,	16	R		59	48 50	5		13	9 0	
		,,	17	R		59	48 41			13	8 0	
		Dec	15	R		59	48 44			13	8 1	
235		Feb	12	M	6	2	21 04		153	44	39 2	8 8
236		Feb	10	M	6	8	35 05	5	155	3	29 5	9 8
		Dec	23	R		8	35 01			3	31 6	9 2
237		Feb	1	R	6	8	53 37		130	31	33 4	9 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
238		Mar	2	M	6	10	6 15		153	14	23 0	9 6
239		Jan	5	M	6	11	2 62		149	53	52 1	7 0
		Feb	8	R		11	2 53			53	50 8	7 0
240		Feb	12	M	6	11	42 86	5	152	1	49 0	
		Mar	1	M		11	43 21	5		1	49 0	8 8
241	13 Geminorum μ	Jan	20	M	6	14	43 96		67	25	14 6	
			21	M		14	43 96			25	15 0	
			30	R		14	43 96	3		25	14 7	
		Feb	4	R		14	43 98			25	13 6	
			9	M		14	43 94			25	14 8	
		Dec	13	M		14	44 02			25	14 8	
			14	M		14	43 99			25	14 9	
			15	R		14	44 03			25	14 1	
242	2273 Lacaille	Mar	3	M	6	17	3 52		153	58	25 4	7 9
		,,	4	M		17	3 79			58	24 4	8 0
243	2286 Lacaille	Feb	10	M	6	18	48 18		153	45	43 1	7 0
		Mar	2	M		18	48 38	4		45	43 6	7 0
244	α Argûs (*Canopus*)	Jan	22	M	6	20	56·11	5	142	37	20 6	
		,,	27	R		20	55 92			37	18 9	
			30	R		20	55 95			37	21 3	
245		Feb	8	R	6	22	6 43		128	48	41 2	8 5
			9	M		22	6 31	4		48	42 4	8 5
246	2312 Lacaille	Mar	5	M	6	22	8 95		153	36	33 9	7 3
247	2524 Taylor	Feb	1	R	6	23	27 42		131	3	3 0	7 2
248	2541 Taylor	Jan	16	M	6	24	54 95		147	54	58 9	6 6
		Feb	3	M		24	54 98	5		54	59 7	6 1
249		Feb	10	M	6	27	30 41		152	27	51 9	9 0
			22	R		27	30 71	4		27	51 3	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864 h	m	s	No of Wires	Mean Polar Distance 1864 °	'	"	Magnitude
250		Feb	1	R	6	27	45 69	5	131	5	17 8	9 0
		,	12	M		27	45 35	5		5	18 0	9 0
251		Feb	8	R	6	28	24 17		130	55	46 3	8 9
			15	M		28	24 42			55	48 2	9 0
252		Mar	1	M	6	28	39 37	3	151	10	1 6	8 6
		,	2	M		28	39 06			10	1 0	8 6
253	24 Geminorum γ	Jan	20	M	6	29	51 28		73	29	18 6	
		,	30	R		29	51 29			29	18 3	
		Feb	11	M		29	51 21			29	17 7	
		"	16	R		29	51 25			29	18 2	
		,	19	R		29	51 27			29	17 2	
		Mar	3	M		29	51 39			29	17 8	
		"	4	M		29	51 32			29	18 3	
		Dec	13	M		29	51 01	2		29	17 3	
		"	14	M		29	51 28			29	19 1	
254		Mar	10	M	6	33	33 10	5	152	27	3 8	8 8
255		Feb	3	M	6	34	30 70		130	27	55 6	7 7
256	51 Cephei (*Hev*)	Jan	11	M	6	35	39 20	3	2	45	18 7	
		"	15	M		35	40 06	3		45	21 9	
		,	19	M		35	39 37	3		45	19 8	
		,	22	M		35	38 79	2		45	20 9	
		,	28	R		35	39 19	3		45	19 6	
		Feb	9	M		35	38 85	3		45	20 2	
		,	16	R		35	39 17	3		45	18 6	
		,	19	R		35	38 18	3		45	17 4	
			26	R		35	38 95	3		45	17 3	
		Mar	3	M		35	40 98	2		45	19 8	
			5	M		35	39 41	2		45	17 6	
	s p	July	18	R		35	38 69	3		45	18 2	
	s p	Aug	16	R		35	38 96	3		45	18 3	
	s p	,	23	R		35	38 27	3		45	22 0	
		Dec	15	R		35	39 37	3		45	~~16 7~~	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*					
257	2652 Taylor	Feb	10	M	6	36	32 86		151	24	50 1	7 0
			12	M		36	32 80	5		24	49 1	6 9
258		Mar	8	M	6	37	53 05		153	20	37 4	9 8
259	2667 Taylor	Mar	7	M	6	38	22 76		148	59	39 8	8 1
260		Mar	4	M	6	39	7 42	3	131	3	25 0	8 6
261	9 Can Maj α (*Sirius*)	Jan	26	R	6	39	9 31		106	31	57 2	
			27	R		39	9 11	5		31	56 0	
		Feb	15	M		39	9 22	3		31	56 5	
262		Feb	22	R	6	40	29 42		131	~~2~~	27 0	8 5
		Mar	9	M		40	29 47			~~2~~	27 2	8 3
			10	M		40	29 51	4		~~2~~	27 2	8 3
263	2724 Taylor	Mar	11	M	6	44	53 27	3	144	36	2 0	8 5
			14	M		44	53 40	5		36	1 2	8 7
264		Feb	18	R	6	46	32 75	5	130	10	6 9	9 5
			29	R		46	32 86	5		10	6 9	9 6
265	α Pictoris	Feb	10	M	6	46	47 55		151	47	46 1	5 0
			11	M		46	47 61			47	46 1	5 0
266	2500 Lacaille	Jan	20	M	6	46	59 78		130	23	21 3	8 0
[59 81]		Mar	10	M		46	59 81			23	19 8	7 7
267	2532 Lacaille	Mar	7	M	6	48	12 77	5	150	5	32 2	6 9
			8	M		48	12 81			5	32 7	6 9
			9	M		48	13 02	4		5	32 7	6 7
268		Feb	18	R	6	48	50 62	5	130	10	16 6	9 1
			29	R		48	50 49	5		10	17 3	9 4
269		Feb	4	R	6	49	43 02	5	129	8	19 7	9 0
270		Jan	27	R	6	50	26 04	3	75	17	23 8	10 7
		Feb	1	R		50	25 72	4		17	26 4	10 6

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
271	21 Canis Majoris ε	Jan	26	R	6	53	16 91		118	47	22 7	
			30	R		53	16 91			47	20 9	
		Feb	3	M		53	16 88	3		47	21 8	
			9	M		53	16 81			47	20 8	
			10	M		53	16 82			47	21 2	
			15	M		53	16 95			47	21 1	
		Mar	14	M		53	16 92			47	21 1	
272		Jan	29	R	6	53	47 61		120	47	30 1	9 3
		Mar	10	M		53	47 83	5		47	31 6	8 8
			11	M		53	47 95			47	32 8	8 8
273	3¹ Geminorum (1st)	Feb	4	R	6	56	1 73	4	69	12	28 9	8 2
274	3 Geminorum Var 1	Jan	21	M	6	56	2 66		69	14	2 0	
			22	M		56	2 55			14	2 2	
		Feb	4	R		56	2 51	3		14	1 3	
			17	R		56	2 33			14	2 4	
			18	R		56	2 37			14	1 7	
275	2825 Taylor	Feb	11	M	6	56	51 97		150	54	38 0	8 7
			26	R		56	52 08			54	37 9	9 1
276	23 Canis Majoris γ	Jan	30	R	6	57	36 32		105	26	5 7	
		Feb	16	R		57	36 31			26	6 0	
			19	R		57	36 36			26	5 4	
			22	R		57	36 25			26	4 8	
277		Feb	13	M	6	58	23 12		66	56	5 9	9 2
		Mar	2	M		58	23 27			56	5 4	9 0
728		Mar	8	M	6	59	11 80		66	59	54 9	9 0
279		Jan	28	R	6	59	48 93		129	48	4 3	9 3
280	2851 Taylor	Mar	9	M	7	0	49 82		145	44	48 1	7 8
			10	M		0	49 80			44	48 1	7 7
281	R Canis Min Var 1	Jan	29	R	7	1	13 77	5	79	45	50 6	9 2

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
282	2882 Taylor	Jan	18	M	7	3	26 87		151	1	4 5	8 8
			26	R		3	27 04			1	1 7	9 2
		Mar	11	M		3	26 74			1	2 0	8 7
			14	M		3	26 96			1	2 7	8 8
283		Jan	25	R	7	4	58 07	5	130	42	33 2	9 3
284	2899 Taylor	Feb	2	R	7	5	47 67		130	8	49 2	8 9
285		Jan	30	R	7	5	51 92		129	23	13 1	9 5
286	2678 Lacaille	Mar	5	M	7	6	10 50		148	9	13 4	8 5
287		Jan	27	R	7	6	38 61		129	2	41 9	8 2
288		Jan	16	M	7	7	59 34		148	46	2 0	9 3
		Feb	9	M		7	59 51	3		46	1 7	~~9 3~~ 9 2
289		Feb	11	M	7	8	9 14		152	5	1 5	8 9
			19	R		8	9 11			5	2 1	8 9
290	2940 Taylor	Jan	29	R	7	9	27 96	5	129	57	41 1	9 0
291	54 Geminorum λ	Feb	17	R	7	10	16 53		73	13	3 4	
			18	R		10	16 44	5		13	3 6	
		Mar	17	R		10	16 37			13	3 8	
292		Jan	28	R	7	10	16 60		131	52	8 3	9 8
293	55 Geminorum δ	Jan	21	M	7	11	59 85		67	46	16 3	
			22	M		11	59 94			46	15 6	
		Feb	1	R		11	59 91			46	15 0	
			10	M		11	59 94			46	14 7	
			13	M		11	59 92			46	16 4	
			15	M		11	59 98			46	16 2	
		Mar	1	M		11	59 91			46	15 8	
			2	M		11	59 94			46	15 2	
			3	M		12	0 00			46	15 7	
			4	M		11	59 95			46	15 6	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*		°			
294		Jan	25	R	7	13	1 19		129	15	59 3	9 2
295		Jan	26	R	7	14	30 70	5	138	49	35 4	8 7
296	3005 Taylor	Mar	5	M	7	15	28 64	5	149	0	53 6	8 7
			14	M		15	28 96			0	54 9	8 6
297	2805 Lacaille	Mar	7	M	7	17	21 21		153	8	4 0	8 3
298		Feb	2	R	7	18	4 08		129	42	31 1	9 2
299	3043 Taylor	Feb	13	M	7	19	~~14 01~~ 13 59	3	129	16	24 8	7 0
300		Jan	30	R	7	19	35 74	5	123	7	59 6	
301	63 Geminorum	Dec	14	M	7	19	39 74		68	16	48 7	5 5
		,	15	R		19	39 87	5		16	48 9	
302	3054 Taylor	Feb	11	M	7	20	1 94		151	41	28 7	7 0
		Mar	1	M		20	2 18	4		41	28 5	7 4
303		Feb	4	R	7	21	34 23	5	131	50	25 7	7 7
304	6 Canis Minoris	Feb	18	R	7	22	13 39		77	42	55 1	
305		Jan	27	R	7	23	24 08	5	51	57	26 3	9 8
306		Mar	3	M	7	24	58 41	4	123	8	19 2	9 0
307	S Canis Minoris Var 2	Jan	30	R	7	25	20 43		81	23	41 7	8 3
308	68 Geminorum	Feb	18	R	7	25	50 58		73	53	3 0	
			19	R		25	50 65	5		53	4 0	
		Mar	17	R		25	50 60	5		53	3 2	
		Dec	15	R		25	50 67	4		53	4 4	
309	66 Gem α² (*Castor*)	Feb	15	M	7	25	55 07		57	49	2 8	
		,	17	M		25	55 11			49	1 3	
			26	R		25	55 01			49	1 3	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
310		Jan	16	M	7	26	5 18		142	5	53 7	8 9
311		Mar	4	M	7	26	48 29		123	7	23 1	8 9
			5	M		26	48 21			7	21 6	9 0
			7	M		26	48 36			7	22 9	9 0
312		Mar	8	M	7	27	13 25		153	10	42 2	9 3
313	3126 Taylor	Feb	3	M	7	29	34 20	4	143	15	44 3	7 1
314	10 Can Min (*Procyon*)	Feb	5	R	7	32	10 96		84	25	47 0	
			17	R		32	10 84			25	46 7	
		,	18	R		32	10 85			25	46 5	
			26	R		32	10 86			25	45 9	
		Mar	2	M		32	10 84			25	45 8	
		,,	9	M		32	10 80			25	46 0	
			10	M		32	10 87			25	46 3	
315	2893 Lacaille	Feb	13	M	7	32	43 53		121	49	28 0	8 0
		Mar	11	M		32	43 28			40	27 1	7 0
316	2910 Lacaille	Feb	22	R	7	33	17 38	5	148	52	~~51 3~~ 6 9	7 7
317		Feb	4	R	7	35	10 00		66	15	55 0	9 8
318		Mar	7	M	7	35	19 80	3	152	59	34 8	8 9
319		Jan	16	M	7	35	29 22		114	19	41 9	8 6
320	78 Gem β (*Pollux*)	Feb	5	R	7	36	59 34		61	38	56 2	
		,	10	M		36	59 43			38	55 7	
		,	18	R		36	59 38			38	55 7	
		Mar	1	M		36	59 40			38	56 6	
			2	M		36	59 36			38	56 5	
			5	M		36	59 63	5		38	55 8	
321	2971 Lacaille	Feb	12	M	7	40	18 18		143	54	58 7	7 5
		Mar	10	M		40	18 36			54	57 8	7 6
322	T Geminorum Var 4	Feb	2	R	7	41	8 37	4	65	55	48 7	10 4

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star		Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
323			Mar	8	M	7	41	18 45	5	151	34	30 1	8 5
324			Feb	26	R	7	41	32 28		144	18	41 3	8 7
325	3013 Lacaille		Feb	3	M	7	43	29 04	2	142	0	43 3	7 0
			Mar	11	M		43	29 03			0	43 0	7 0
326	49 R P L		Feb	15	M	7	43	55 47	2	5	33	41 4	
			Mar	9	M		43	55 14	3		33	42 2	
		s p	Sept	13	M		43	55 11	2		33	~~40 4~~ 40 1	
327	3034 Lacaille		Mar	7	M	7	44	4 63	5	153	51	39 1	8 8
328	3031 Lacaille		Jan	16	M	7	45	5 14		144	22	26 1	7 9
			Feb	29	R		45	5 15			22	27 2	7 6
			Mar	3	M		45	5 11			~~27~~ 22	27 6	7 7
329	3290 Taylor		Jan	25	R	7	46	18 09	4	144	27	57 2	8 3
330	1791 Brisbane		Jan	25	R	7	46	18 63	3	144	24	39 2	8 3
331			Mar	4	M	7	46	29 42		144	22	26 0	8 5
			,	5	M		46	29 47	3		22	27 1	8 5
332			Feb	18	R	7	48	28 60		67	46	6 8	9 2
			Mar	2	M		48	28 62			46	6 6	9 0
333	3310 Taylor		Mar	14	M	7	48	32 66		140	17	52 9	7 0
334			Feb	5	R	7	48	59 01	5	130	26	3 1	9 5
335			Mar	8	M	7	49	29 50	5	152	34	55 6	6 9
[5 12] 336			Mar	10	M	7	50	~~4 76~~ 5 12	3	129	38	25 7	8 8
337	3339 Taylor		Feb	12	M	7	51	50 10		144	16	56 4	8 6
338			Mar	1	M	7	52	54 08		144	41	42 0	8 7

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
339	5 Cancri	Jan	22	M	7	53	45 13		73	10	28 2	6 0
			23	M		53	45 31			10	21 9	6 0
340	6 Cancri	Jan	26	R	7	55	9 63		61	49	39 8	
		Feb	2	R		55	9 78			49	39 9	
		Mar	9	M		55	9 68			49	40 8	
			11	M		55	9 72			49	40 8	
341	3373 Taylor	Feb	22	R	7	55	13 83	5	144	11	51 9	8 0
		Mar	3	M		55	13 78			11	53 1	7 8
342		Mar	16	R	7	55	20 11		128	30	12 2	8 0
343	1855 Brisbane	Mar	5	M	7	55	27 93		152	55	47 1	6 7
			7	M		55	28 21	3		55	47 2	7 0
344	3380 Taylor	Feb	13	M	7	55	48 11		144	10	34 0	7 6
			22	R		55	47 88	4		10	33 0	8 0
		Mar	4	M		55	47 90	6		10	34 4	7 9
345		Feb	1	R	7	56	31 51		129	21	20 2	9 8
346	3154 Lacaille	Jan	21	M	7	58	36 62	5	153	11	27 7	5 5
		Mar	2	M		58	36 64	5		11	29 5	5 6
		,,	15	M		58	36 93	5		11	28 9	5 7
347	12 Cancri	Jan	22	M	8	1	6 38		75	57	59 2	6 0
		,,	23	M		1	6 58			57	58 0	6 0
348	3174 Lacaille	Mar	8	M	8	1	25 72	5	155	37	56 8	7 0
		Apl	2	M		1	25 65			37	55 2	7 4
349	15 Argûs	Jan	25	R	8	1	45 10		113	54	51 6	
		,,	26	R		1	45 23			54	51 6	
		Feb	18	R		1	45 13	5		54	52 3	
		,,	22	R		1	45 15			54	51 5	
		,,	23	R		1	45 15			54	52 0	
		,,	26	R		1	45 20			54	51 2	
		,,	29	R		1	45 16			54	51 2	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
349	15 Argûs	Mar	7	M	8	1	45 08		113	54	51 7	
			10	M		1	45 17			54	51 3	
350		Feb	12	M	8	2	2 82	4	113	46	47 6	9 1
351	3200 Lacaille	Mar	4	M	8	4	47 56	5	153	7	25 0	6 9
		,	9	M		4	47 70	3		7	28 6	6 9
352		Feb	4	R	8	5	19 41	4	130	45	22 9	8 6
353		Mar	17	R	8	5	20 16	5	77	37	35 3	9 9
		,	31	R		5	20 03	3		37	34 3	10 3
354		Mar	16	R	8	5	26 41		77	24	57 5	8 9
			22	R		5	26 36	4		24	57 8	8 9
		Apl	6	M		5	26 52			24	57 0	9 2
355		Mar	16	R	8	8	19 58	5	77	26	30 7	9 7
		Apl	4	M		8	19 78	3		26	30 7	9 7
			5	M		8	19 78	4		26	31 8	9 8
356	R Cancri Var 1	Mar	10	M	8	9	3 93	5	77	51	33 0	8 1
			14	M		9	3 81			51	33 0	7 9
357		Mar	22	R	8	9	7 36		77	27	27 6	9 3
		Apl	1	M		9	7 47			27	28 0	9 3
		,,	2	M		9	7 51	4		27	28 1	9 0
358		Feb	2	R	8	9	55 84	5	74	16	13 7	9 7
359		Mar	17	R	8	10	28 71	5	77	37	47 9	9 7
		,,	18	R		10	29 02	5		37	47 4	10 0
		,	31	R		10	28 80	5		37	47 5	9 9
360	16224 Lalande	Jan	25	R	8	10	33 55		73	54	11 0	8 5
361		Feb	5	R	8	12	17 13	4	128	43	38 1	8 8
362		Feb	5	R	8	12	45 20	4	128	40	53 7	8 9

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*					
363		Feb	16	R	8	12	57 45		130	45	32 2	9 7
364		Feb	17	R	8	13	20 72	5	131	41	14 0	9 5
		Mar	7	M		13	20 54	3		41	13 6	8 8
365		Feb	13	M	8	13	42 39	5	133	17	18 1	9 6
366		Mar	8	M	8	14	30 56		154	5	5 7	9 7
367		Mar	15	M	8	16	25 78	5	77	31	46 7	9 3
368		Mar	11	M	8	17	22 71		77	40	9 1	8 6
369		Feb	15	M	8	17	23 61		141	15	52 4	9 0
370	VIII 459 W B N	Feb	16	R	8	20	17 12	5	74	27	21 8	8 3
		„	17	R		20	17 06			27	21 4	9 0
		„	18	R		20	17 18			27	21 0	
371	29 Cancri	Feb	19	R	8	21	2 13	4	75	20	30 1	
372		Mar	10	M	8	23	7 87		73	25	24 8	9 0
		„	11	M		23	7 72			25	24 9	9 0
		„	14	M		23	7 85			25	24 3	9 0
373	3620 Taylor	Feb	13	M	8	23	10 60		130	47	47 6	8 0
374		April	2	M	8	23	32 12		128	38	35 7	8 6
375	31 Cancri θ	Dec	15	R	8	23	50 24		71	26	55 9	
376		Mar	1	M	8	24	44 93		73	45	40 9	9 5
		„	2	M		24	44 75			45	40 7	9 5
			3	M		24	44 77			45	40 7	9 5
24		„	4	M		~~32~~	44 86			45	40 4	9 5
377	33 Cancri η	Jan	25	R	8	24	50 41		69	5	59 8	
		Feb	22	R		24	50 49			5	59 5	
		„	23	R		24	50 41			5	59 3	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
377	33 Cancri η	Feb	29	R	8	24	50 11		75	5	59 5	
		Mar	5	M		24	50 28			5	58 9	
		,	7	M		24	50 47			5	59 7	
			8	M		24	50 43			5	59 4	
		,	9	M		24	50 15			5	59 7	
		,	17	R		24	50 34			5	59 4	
378	3651 Taylor	Feb	5	R	8	25	39 62	3	103	3	20 0	7 8
379	3652 Taylor	Feb	5	R	8	25	43 61	5	130	2	38 3	8 3
		Mar	21	R		25	43 61			2	38 2	8 0
380	3393 Lacaille	Feb	10	M	8	25	56 92		140	40	8 3	7 8
			15	M		25	56 92			40	8 9	7 9
381		Apl	8	M	8	26	~~25 63~~ 25 43		130	30	28 1	9 1
382	VIII 635 W B N	Mar	1	M	8	27	38 90		73	48	20 0	9 0
		,,	2	M		27	38 97			48	19 2	9 0
		,	3	M		27	39 06			48	18 7	9 0
		,	4	M		27	38 78			48	19 8	9 0
383	U Cancri Var 4	Jan	26	R	8	27	59 07	5	70	38	21 2	10 0
		Feb	16	R		27	58 78			38	19 5	9 3
384	3672 Taylor	Feb	17	R	8	28	29 88		74	13	7 4	7 0
		,	18	R		28	29 82			13	8 4	7 3
		,	19	R		28	30 16			13	7 6	
385	16890 Lalande	Apl	4	M	8	28	41 64		73	12	52 4	9 0
		,	5	M		28	41 65			12	52 7	8 8
		,	6	M		28	41 63			12	51 7	8 8
386	VIII 684 W B N	Apl	9	M	8	29	1 20		70	38	51 4	8 9
387	VIII 699 W B N	Apl	1	M	8	29	31 11		70	39	37 1	9 0
388		Feb	29	R	8	31	12 43		129	45	21 0	9 4
389	3710 Taylor	Feb	28	R	8	31	24 29	5	141	21	4 0	8 2

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
390		Mar	15	M	8	33	9 78	5	120	23	27 0	8 6
391	VIII 852 W B N	Feb	16	R	8	34	1 82		74	7	40 3	9 0
			17	R		34	1 86	5		7	39 7	9 0
			22	R		34	1 84			7	39 1	8 8
392		Feb	29	R	8	34	39 45	5	120	46	12 0	9 2
		Mar	7	M		34	39 32			46	12 1	8 9
			10	M		34	39 57			46	11 8	8 9
393	3491 Lacaille	Apl	7	M	8	36	1 13	5	152	21	51 3	7 9
394	S Cancri Var 2	Apl	8	M	8	36	9 77	5	70	28	48 0	8 3
395	3767 Taylor	Mar	9	M	8	36	19 67	3	149	50	15 2	7 6
396	47 Cancri δ	Dec	15	R	8	36	57 18		71	20	55 9	
397		Apl	6	M	8	37	16 10		136	8	32 1	9 2
398	17231 Lalande	Feb	18	R	8	37	44 09		74	27	41 3	8 8
		,,	19	R		37	44 22			27	41 8	
			22	R		37	44 10			27	41 3	7 5
399		Feb	24	R	8	37	50 64	5	136	5	33 5	8 0
		Apl	2	M		37	50 51			5	33 7	8 6
400	VIII 977 W B N	Feb	10	M	8	39	15 32		74	48	59 3	9 5
			15	M		39	15 20			49	1 7	9 6
			16	R		39	15 18	4		49	0 5	9 5
401	11 Hydræ ε	Feb	26	R	8	39	34 [illegible]4		83	5	4 4	
			29	R		39	34 20			5	4 5	
		Mar	5	M		39	34 16			5	3 6	
			8	M		39	~~44 30~~ 34 30			5	5 0	
			14	M		39	34 26			5	4 7	
			15	M		39	34 38			5	4 8	
402		Feb	23	R	8	40	29 34		129	15	34 0	8 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°			
403	VIII 1043 W B N	Feb	5	R	8	42	21 57		74	39	54 0	8 3
			11	M		42	21 50			39	55 1	8 3
			12	M		42	21 36			39	54 0	8 2
404		Apl	4	M	8	45	46 94		86	27	12 6	8 7
		,,	5	M		45	46 91			27	11 6	8 6
405	60 R P L	Mar	16	R	8	46	22 90	5	5	16	53 7	
			19	R		46	23 67	3		16	53 7	
			23	R		46	23 09	3		16	54 1	
		Apl	12	R		46	23 31	3		16	55 1	
	s p	Sept	26	R		46	22 66	5		16	53 1	
	s p		29	R		46	22 83	3		16	~~53 5~~ — 51 7	
406	S Hydræ Var 3	Mar	11	M	8	46	28 34		86	25	13 8	8 5
		Apl	9	M		46	28 37			25	13 0	9 0
407	3886 Taylor	Feb	13	M	8	48	13 86		136	52	52 5	7 9
		Mar	10	M		48	14 05			52	52 8	7 9
			15	M		48	14 14			52	53 1	7 8
408	T Hydræ Var 4	Mar	22	R	8	49	2 70	5	98	37	29 1	10 0
			30	R		49	2 77	5		37	29 2	9 7
409		Mar	9	M	8	49	13 13	3	132	54	19 8	7 7
410		Mar	4	M	8	49	20 12		132	59	0 7	7 6
411	9 Ursæ Majoris ι	Feb	22	R	8	49	52 89		41	25	37 0	
			24	R		49	52 88			25	38 1	
			26	R		49	52 81			25	38 4	
		Mar	5	M		49	52 77	6		25	37 2	
412		Mar	7	M	8	50	15 28		132	56	55 1	8 0
413		Feb	17	R	8	50	46 62	5	98	44	16 8	9 8
414	VIII 1302 W B E	Mar	23	R	8	50	49 33	4	98	53	46 7	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
415		Feb	16	R	8	50	58 88	5	98	35	9 3	9 1
		Mar	17	R		50	58 75	5		35	9 2	9 2
416	65 Cancri α	Mar	18	R	8	51	2 70		77	37	5 9	
			19	R		51	2 70	5		37	6 2	
417		Mar	8	M	8	54	9 76	5	142	41	8 8	9 1
			16	I		54	9 96			41	8 8	9 5
418		Apl	13	M	8	54	20 33		130	34	53 3	8 4
419	3941 Taylor	Feb	5	R	8	54	59 75	5	144	6	23 4	8 5
39 39 420		Apl	7	M	8	56	~~59 39~~	3	146	55	44 0	8 1
421		Feb	26	R	8	56	43 30		129	18	12 4	9 5
422		Mar	30	R	8	58	5 43		146	49	41 4	
423		Apl	9	M	8	58	9 40		146	18	23 9	9 0
424		Feb	24	R	8	59	6 08		145	38	9 8	8 7
		Mar	14	M		59	6 09			38	9 2	9 0
		Apl	8	M		59	5 94	5		38	8 7	9 1
425	76 Cancri κ	Jan	23	M	9	0	22 92		78	47	13 2	
		Mar	18	R		0	22 69			47	12 4	
		,	19	R		0	22 72			47	11 4	
426		Mar	9	M	9	1	3 47	3	150	1	31 3	8 3
		,	11	M		1	3 54	5		1	32 3	8 1
427		Mar	17	R	9	1	50 14		128	57	10 7	8 0
428	3705 Lacaille	Apl	14	M	9	2	13 97	3	151	17	3 1	7 1
			15	M		2	13 92	5		17	4 0	7 2
429		Feb	29	R	9	2	15 75	2	71	26	28 1	10 5
430		Apl	13	M	9	4	23 60		130	29	40 7	8 7

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*					
444	9881 O A N	Feb	17	R	9	17	37 18	5	25	3	44 5	9 1
		Mar	23	R		17	37 40	5		3	44 9	9 2
445		Feb	23	R	9	19	29 04		75	6	30 3	7 7
		Mar	2	M		19	29 11			6	31 8	7 6
446	30 Hydræ α Var 1	Mar	4	M	9	20	54 17		98	4	15 8	
			7	M		20	54 16			4	15 8	
			14	M		20	54 23			4	15 8	
			15	M		20	54 17			4	15 9	
			16	R		20	54 26			4	15 4	
		Apl	15	M		20	54 28			4	14 0	
447	3853 Lacaille	Mar	3	M	9	22	31 95		131	59	15 6	7 9
			22	R		22	32 10			59	14 9	8 6
		Apl	14	M		22	31 99			59	16 8	7 8
448	25 Ursæ Majoris θ	Feb	24	R	9	23	44 63		37	42	19 0	
		Mar	17	R		23	44 48			42	18 8	
449	3886 Lacaille	Mar	19	R	9	24	48 28		141	49	48 5	7 8
450	3887 Lacaille	Mar	21	R	9	24	54 96		149	0	31 6	7 8
		Apl	6	M		24	55 11			0	31 7	8 3
451		Mar	9	M	9	26	42 23	5	145	2	26 6	8 8
			30	R		26	42 16			2	27 1	9 3
		Apl	4	M		26	42 17	3		2	26 2	8 8
452		Mar	31	R	9	26	55 57	5	141	58	8 4	9 0
453		Apl	7	M	9	27	58 54	5	128	45	53 6	8 3
454	4226 Taylor	Mar	8	M	9	28	37 63	5	146	29	33 0	7 0
455		Feb	23	R	9	28	54 88		128	46	55 4	8 2
456		Feb	2[illegible]	R	9	29	1 22		128	49	33 6	8 0
		Mar	15	M		29	1 42	4		49	34 2	8 5

Separate Results of Madras Meridian Circle Observations in 1861

Number	Star	Date of Observation		Observer	Mean Right Ascension 1861			No. of Wires	Mean Polar Distance 1861			Magnitude
					h	m	s					
431	3713 Lacaille	Mar	16	P	9	4	31 83		113	40	12 4	8 8
432	4021 Taylor	Feb	2	R	9	5	31 07	5	138	44	10 7	7 0
		Mar	15	M		5	31 21	5		44	12 2	7 1
433		Apl	9	M	9	6	26 92	3	112	29	27 7	7 7
434		Feb	24	R	9	6	30 83	4	138	41	30 2	8 8
435		Mar	2	M	9	8	14 15	3	148	14	17 0	8 6
			3	M		8	14 11	3		14	13 7	8 5
			14	M		8	14 18			14	14 5	8 7
436	83 Cancri	Mar	11	M	9	11	23 15		71	43	13 8	
		,,	17	R		11	23 10			43	13 8	
		,,	21	R		11	23 09			43	13 2	
		Apl	12	M		11	23 13			43	13 0	
437		Feb	17	R	9	11	48 62		130	45	8 5	8 6
			22	R		11	48 64			45	7 8	7 8
		Apl	13	M		11	48 59			45	7 1	8 0
			14	M		11	48 63			45	8 0	8 2
438		Mar	10	M	9	13	3 38		72	17	58 1	7 9
			18	R		13	3 11			17	57 0	
		Apl	5	M		13	3 30			17	57 4	7 9
439	ι Argûs	Feb	26	R	9	13	27 00		148	42	22 0	
		Mar	30	R		13	26 96			42	21 8	
		Apl	15	M		13	27 22	3		42	23 2	
440		Apl	1	M	9	14	37 95	5	24	50	29 1	8 6
			2	M		14	37 88			50	29 4	8 6
441		Mar	22	R	9	15	15 46	5	143	48	40 2	9 0
442		Mar	23	R	9	15	54 93	5	25	4	26 1	9 0
443		Mar	1	M	9	16	6 17	4	140	7	34 8	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*		°			
457	4259 Taylor	Mar	2	M	9	31	57 68	4	138	44	48 5	5 3
458		Mar	1	M	9	32	27 56		129	53	51 2	8 6
			18	R		32	27 62			53	53 5	9 2
		Apl	1	M		32	27 71			53	53 4	8 5
459		Mar	17	R	9	32	54 20	5	129	47	34 1	7 8
460	14 Leonis *o*	Jan	25	R	9	33	53 34		79	29	28 4	
		Apl	16	R		33	53 36			29	26 8	
461		Mar	3	M	9	34	43 83		130	34	39 5	9 0
			7	M		34	43 92	3		34	41 4	8 7
			22	R		34	44 01			34	37 2	9 0
462		Apl	8	M	9	35	33 97	5	151	56	22 6	8 5
463	17 Leonis *ε*	Feb	19	R	9	38	7 56		65	36	5 9	
			23	R		38	7 56			36	6 0	
			24	R		38	7 50			36	6 6	
		Mar	8	M		38	7 57			36	7 7	
			17	R		38	7 45			36	5 9	
		,,	19	R		38	7 54			36	5 9	
			21	R		38	7 50			36	5 0	
		Apl	2	M		38	7 61			36	6 1	
464	R Leonis Var 1	Mar	31	R	9	40	14 29		77	56	32 5	6 0
		Apl	4	M		40	14 49	5		56	32 8	6 0
		,	5	M		40	14 38			56	32 4	6 0
			6	M		40	14 45			56	31 9	6 0
			7	M		40	14 48			56	32 1	6 0
465		Jan	26	R	9	41	50 08	5	130	49	18 8	8 7
466		Mar	23	R	9	42	42 08		130	47	49 2	9 0
467		Mar	2	M	9	43	27 04		143	56	51 3	9 0
		,	22	R		43	27 06			56	49 5	8 9
		Apl	1	M		43	27 16	5		56	50 4	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
468		Mar	9	M	9	43	34 18		143	45	55 2	7 7
469		Mar	21	R	9	45	55 93	6	129	2	51 8	8 8
470	70 R P L	Mar	1	M	9	46	18 43	3	5	25	49 5	
			14	M		46	17 64	3		25	49 8	
		Apl	2	M		46	18 06	3		25	48 3	
471		Mar	3	M	9	46	26 57		129	6	56 2	9 4
			7	M		46	26 51	3		6	56 5	9 0
472	IX 1057 W B N	Feb	17	R	9	49	44 66		85	6	41 9	7 2
			18	R		49	44 66			6	42 3	7 3
			23	R		49	44 68			6	42 0	7 8
473	4402 Taylor	Apl	5	M	9	49	53 39		129	47	30 3	7 9
			6	M		49	53 41	5		47	29 3	7 6
			12	M		49	53 41			47	30 4	7 3
474	29 Leonis π	Jan	25	R	9	53	1 18		81	18	17 0	
		Feb	19	R		53	1 47			18	17 5	
		,,	22	R		53	1 45			18	16 8	
			24	R		53	1 44			18	18 0	
		,	25	R		53	1 46			18	16 1	
		Mar	11	M		53	1 42			18	18 1	
		,	19	R		53	1 54			18	17 8	
		Apl	4	M		53	1 47			18	18 6	
		,	14	M		53	1 52			18	17 8	
		,	15	M		53	1 30			18	17 6	
475		Apl	9	M	9	53	53 10 52 92	4	152	6	48 9	9 3
476	4445 Taylor	Feb	26	R	9	54	43 15	3	147	28	41 9	8 7
		Mar	2	M		54	43 18			28	40 8	7 9
			9	M		54	43 09			28	40 6	7 7
		Apl	8	M		54	43 33	5		28	40 0	7 9
477		Mar	7	M	9	56	26 50		143	3	50 4	8 8
478		Feb	29	R	9	57	7 36	5	129	56	40 4	9 0

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
479	4476 Taylor	Mar	31	R	9	57	51 23	1	115	36	4 3	8 5
480		Apl	13	M	9	58	25 98		130	38	57 8	8 5
			26	R		58	26 02	5		38	58 0	9 0
481	14 Sextantis	Feb	22	R	9	59	10 60	5	83	43	36 5	
482	31 Leonis A	Mar	19	R	10	0	11 11		79	20	15 0	
483	32 Leonis α (*Regulus*)	Mar	1	M	10	1	7 57		77	22	10 4	
			10	M		1	7 60			22	10 3	
			16	R		1	7 53			22	10 0	
			23	R		1	7 40			22	11 1	
		"	30	R		1	7 51			22	10 6	
		Apl	1	M		1	7 64			22	10 2	
		"	2	M		1	7 52			22	10 5	
		"	4	M		1	7 61			22	11 0	
		"	5	M		1	7 52			22	10 4	
		"	6	M		1	7 54			22	9 9	
		"	7	M		1	7 52			22	11 3	
		"	12	M		1	7 56			22	10 8	
		"	14	M		1	7 56	5		22	10 3	
		"	15	M		1	7 61			22	10 5	
484		Feb	29	R	10	2	46 64	5	129	57	38 4	9 0
485	4538 Taylor	Feb	26	R	10	6	9 49		129	19	26 2	8 3
		Mar	11	M		6	9 32			19	28 1	7 1
		Apl	8	M		6	9 45	4		19	26 9	7 0
486		Feb	25	R	10	9	1 48	5	139	51	41 4	
		Mar	14	M		9	1 44	3		51	42 2	9 1
487	72 R P L	Mar	31	R	10	9	20 53	3	5	3	38 8	
		Apl	15	M		9	20 83	3		3	39 1	
			16	R		9	20 35	3		3	39 0	
	s p	Oct	3	M		9	21 11	3		3	35 8	
	s p	Nov	2	M		9	20·78	2		3	38 5	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
488	4577 Taylor	Mar	30	R	10	9	47.70		128	36	58.0	8.8
		Apl	4	M		9	47.77			36	57.1	8.7
489		Apl	13	M	10	10	15.97		139	51	9.0	9.0
490	41 Leonis γ^1	Mar	3	M	10	12	28.06		69	28	20.5	
			15	M		12	28.21			28	20.2	
			16	R		12	28.15			28	19.4	
			17	R		12	28.14			28	20.2	
			18	R		12	28.20			28	20.4	
			22	R		12	28.21			28	19.3	
		Apl	1	M		12	28.18			28	20.2	
			2	M		12	28.22			28	20.2	
			7	M		12	28.12			28	19.6	
			14	M		12	28.18	5		28	19.8	
			18	R		12	28.19	5		28	20.0	
			20	R		12	28.27			28	19.4	
491	43 Leonis	Jan	25	R	10	15	53.34		82	46	4.5	
			26	R		15	53.45			46	5.7	
492		Mar	31	R	10	16	8.21	5	75	24	31.4	9.0
		Apl	6	M		16	8.18			24	29.7	9.3
493		Feb	26	R	10	16	11.74	5	129	16	16.4	9.0
		Mar	7	M		16	11.83			16	16.6	8.8
494	4653 Taylor	Mar	8	M	10	18	1.94	5	151	23	10.5	8.4
495	45 Leonis	Jan	25	R	10	20	27.81	4	79	32	43.1	
			26	R		20	27.96	5		32	44.1	
		Apl	16	R		20	27.83	5		32	45.1	
496		Apl	13	M	10	21	55.82		116	59	1.4	9.0
497	30 Sextantis	Mar	21	R	10	23	20.43	5	89	56	25.8	
498		Mar	16	R	10	23	22.02	4	76	5	16.9	10.0
		"	19	R		23	22.37	3		5	18.5	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*					
499	47 Leonis ρ	Mar	18	R	10	25	38 88		79	59	41 2	
			22	R		25	38 85			59	41 1	
		Apl	2	M		25	38 88			59	41 4	
			4	M		25	38 81			59	40 1	
			7	M		25	38 92			59	41 7	
			8	M		25	38 87			59	40 6	
			9	M		25	38 83			59	41 3	
			14	M		25	38 86			59	41 1	
			16	R		25	38 80	6		59	41 5	
			20	R		25	38 89			59	41 6	
500		Apl	13	M	10	29	12 38	3	147	54	36 6	9 2
501		Apl	16	R	10	34	52 10	5	139	16	37 9	9 7
			25	R		34	52 19	5		16	38 9	9 5
502		Apl	26	R	10	35	22 25		137	19	31 7	9 2
503	36 Sextantis	Mar	21	R	10	38	8 91		86	47	51 7	
504		Apl	4	M	10	38	46 97		144	50	22 2	8 2
		,	13	M		38	46 93			50	19 8	7 9
			15	M		38	47 32	3		50	21 3	7 9
505	η Argus Var 1	Feb	24	R	10	39	47 52		148	58	13 4	
		Apl	2	M		39	47 48			58	14 4	
		,,	20	R		39	47 35			58	12 3	
506		Mar	15	M	10	41	25 52		146	23	11 9	9 0
507	53 Leonis l	Mar	16	R	10	42	6 37		78	44	9 9	
			18	R		42	6 37			44	10 8	
			22	R		42	6 35			44	10 5	
		Apl	1	M		42	6 36			44	9 9	
		,	6	M		42	6 27			44	10 5	
		,	7	M		42	6 48			44	10 5	
			8	M		42	6 36			44	9 3	
		,	9	M		42	6 38			44	10 7	
			12	M		42	6 34			44	10 4	

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
	507	53 Leonis l	Apl	19	R	10	12	6 31		78	44	10 4	
			May	10	M		42	6 39			44	10 3	
	508	4886 Taylor	Mar	4	M	10	42	47 47		137	2	0 2	7 0
	509		Apl	14	M	10	45	4 05	3	141	45	5 6	7 9
				26	R		45	4 19	4		45	4 6	8 2
				28	R		45	4 16	5		45	3 7	8 3
	510		Apl	26	R	10	46	2 79	5	141	39	51 2	8 4
	511		Apl	20	R	10	47	52 85		150	5	33 6	9 0
	512		Apl	5	M	10	47	59 18	5	129	29	12 6	8 9
	513		Mar	22	R	10	50	16 20	5	111	30	30 0	9 0
	514	4955 Taylor	Apl	13	M	10	50	10 47		117	19	36 3	6 8
	515		Mar	23	R	10	52	18 91		143	36	15 0	9 0
	516		Apl	4	M	10	52	52 73	6	139	32	46 6	8 3
			May	10	M		52	52 75			32	46 1	8 8
	517	59 Leonis c	Feb	22	R	10	53	41 72		83	10	6 6	
				23	R		53	41 73			10	7 2	
26	518	61 Leonis p^1	Jan	~~18~~	R	10	54	53 8		91	45	12 8	
	519	50 Ursæ Majoris α	Apl	15	M	10	55	18 59	4	27	30	56 1	
				18	R		55	18 49			30	59 2	
				20	R		55	18 58	4		30	56 3	
	520		May	13	M	10	56	59 18		115	32	27 1	8 2
	521		Apl	25	R	10	57	1 96	5	115	35	10 0	9 3
	522	4576 Lacaille	Mar	4	M	10	57	48 82	4	129	34	32 7	8 0
			May	12	M		57	48 88			34	33 4	7 7

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°			
523	63 Leonis χ	Feb	24	R	10	58	0 02		81	55	47 2	
		Mar	19	R		58	0 07			55	47 0	
			21	R		58	0 17			55	45 8	
			23	R		58	0 12	4		55	46 5	
		,	30	R		57	59 97			55	46 3	
			31	R		57	59 99			55	46 5	
		Apl	5	M		58	0 04			55	47 1	
		,	8	M		57	59 95			55	45 7	
		,	9	M		58	0 01			55	46 7	
			13	M		57	59 95			55	46 3	
		May	10	M		58	0 09	4		55	46 6	
524		Apl	27	R	10	58	11 95		140	59	14 9	9 2
525	65 Leonis p^3	Apl	18	R	10	59	57 96	5	87	18	~~20·9~~ 27 4	
526		Apl	29	R	11	0	36 53	5	149	13	43 7	9 7
527	21367 Lalande	May	16	M	11	3	18 75		78	5	47 8	8 0
528		May	14	M	11	4	20 19		150	14	31 1	8 2
529	5092 Taylor	Apl	30	R	11	5	18 86	5	113	10	7 7	8 8
530		Mar	21	R	11	5	41 13		83	50	24 5	9 8
		"	22	R		5	41 07			50	25 1	10 0
531	69 Leonis p^5	Feb	22	R	11	6	47 83	5	89	10	48 4	
532	68 Leonis δ	Feb	25	R	11	6	52 25		68	43	54 7	
		Mar	19	R		6	52 26			43	56 0	
			23	R		6	52 28			43	53 7	
			30	R		6	52 30			43	55 4	
			31	R		6	52 27			43	55 7	
		Apl	9	M		6	52 33			43	55 6	
			12	M		6	52 27			43	56 3	
			13	M		6	52 24	3		43	54 8	
		,	15	M		6	52 33			43	55 9	
			20	R		6	52 24			43	55 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
533		Apl	29	R	11	7	7 12		145	40	14 6	8 2
534		May	13	M	11	8	34 11		150	50	49 2	8 0
535		May	4	R	11	9	28 70	5	145	55	13 9	9 8
536	74 Leonis φ	Jan	26	R	11	9	45 02		92	54	32 6	
		Mar	21	R		9	44 85	4		54	32 0	
		,	22	R		9	44 91	4		54	31 8	
		Apl	18	R		9	44 81			54	31 5	
537		Apl	26	R	11	10	31 90		141	8	35 7	9 8
538		Apl	27	R	11	11	8 16	5	127	38	22 5	9 0
539	12 Crateris δ	Feb	25	R	11	12	32 55		104	2	33 7	
		Mar	23	R		12	32 61			2	34 3	
			30	R		12	32 61			2	35 0	
		,,	31	R		12	32 58			2	34 4	
		Apl	16	R		12	32 57			2	35 0	
		,,	19	R		12	32 54			2	34 1	
		,	25	R		12	32 60			2	35 3	
		May	5	R		12	32 53			2	34 8	
540		Apl	30	R	11	12	48 64		129	32	6 0	8 2
		May	12	M		12	48 56			32	7 5	7 7
			14	M		12	48 55			32	7 0	7 9
541	4726 Lacaille	Apl	29	R	11	16	5 19		145	51	29 0	8 0
		May	2	R		16	5 22			51	28 9	7 2
542	5220 Taylor	Apl	30	R	11	19	0 53		131	55	30 6	8 2
		May	4	R		19	0 39			55	30 1	8 5
		,	13	M		19	0 61	5		55	31 7	7 6
543		Apl	28	R	11	19	24 95		129	30	57 8	8 6
544		Mar	30	R	11	21	41 86	5	128	22	47 4	9 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension. 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
545		Mar	21	R	11	22	7 53		129	4	15 7	7 8
		Apl	16	R		22	7 83			4	16 3	8 5
			27	R		22	7 50			4	15 1	8 5
		May	14	M		22	7 77			4	15 6	7 5
546		Apl	25	R	11	22	48 14		145	53	41 9	9 0
547		Apl	26	R	11	23	11 85		142	52	33 9	9 0
548	87 Leonis *e*	May	16	M	11	23	21 88		92	[illegible]5	13 9	
549		May	2	R	11	24	35 16	5	146	8	57 3	9 0
		,	4	R		24	35 16			8	57 5	9 2
550		Apl	29	R	11	26	14 97		143	51	15 0	9 0
		,,	30	R		26	15 07	5		51	15 3	9 2
551		Apl	28	R	11	26	39 88	5	23	17	32 2	10 2
552		Apl	26	R	11	29	50 97	5	149	1[illegible]	40 3	8 5
553	91 Leonis *υ*	Feb	23	R	11	29	59 09		90	4	21 1	
			24	R		29	59 15			1	21 9	
		Mar	18	R		29	59 15			4	21 3	
			21	R		29	59 05			4	21 1	
		Apl	5	M		29	59 17			4	21 2	
			6	M		29	59 23			1	21 0	
			13	M		29	59 19			4	21 8	
			16	R		29	59 10	5		4	21 8	
			18	R		29	59 12			4	24 7	
		,	27	R		29	59 08			4	23 3	
		May	2	R		29	59 13			4	21 4	
			16	M		29	59 05			4	25 0	
		,	18	M		29	59 19			4	23 5	
554		Apl	25	R	11	32	9 19		144	14	32 4	9 2
555		Apl	29	R	11	33	57·32		127	49	16 1	8 8
556		Mar	31	R	11	34	20 24	5	144	20	39 4	8 8

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
	557		Apl	30	R	11	36	3 21	5	139	40	16 5	9 0
	558	5384 Taylor	May	2	R	11	37	2 83	3	151	44	6 6	6 0
			,	10	M		37	2 86			44	7 9	6 0
	559		May	3	R	11	38	9 35	4	149	38	49 4	8 0
	560		Apl	28	R	11	38	42 13		129	34	5 1	9 8
5693	561		May	19	M	11	40	56 ~~86~~ 93		149	52	2 4	7 9
	562		Apl	4	M	11	41	9 03		126	30	25 6	8 7
	563		Apl	5	M	11	41	12 31		129	32	6 9	8 4
				28	R		41	12 41			32	5 6	8 0
	564	94 Leonis β	Mar	22	R	11	42	7 21		74	40	4 5	
			,	31	R		42	7 22			40	4 8	
			Apl	6	M		42	7 20	5		40	5 0	
				8	M		42	7 24			40	5 2	
			,	16	R		42	7 29			40	5 4	
			,,	21	R		42	7 12			40	4 9	
			,,	25	R		42	7 14			40	4 7	
			,	26	R		42	7 13			40	5 2	
				27	R		42	7 20			40	5 3	
			May	2	R		42	7 27			40	4 3	
				12	M		42	7 28			40	5 2	
	565		Apl	29	R	11	43	8 20		148	45	15 4	9 0
			May	13	M		43	8 36			45	16 0	7 9
	566	5 Virginis β	Feb	23	R	11	43	36 69		87	28	8 6	
				24	R		43	36 73			28	9 3	
			Apl	18	R		43	36 62			28	8 3	
			,	19	R		43	36 65			28	8 3	
	567	5427 Taylor	May	20	M	11	44	5 15		94	34	38 6	6 0
	568		Apl	30	R	11	44	44 16		129	2	40 7	8 7

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s						
569	5433 Taylor	Apl	28	R	11	44	51 57		129	~~30~~	3 0	7 7	33
570		May	3	R	11	45	51 40	5	112	31	0 6	9 3	
571	64 Ursæ Majoris γ	Apl	21	R	11	46	39 67		85	32	56 9		
572		Mar	31	R	11	49	57 01		128	5	29 8	8 7	
		Apl	27	R		49	56 91			5	29 3	8 7	
573		Apl	4	M	11	51	28 65		128	52	34 2	8 4	
574		Apl	25	R	11	51	36 57		141	12	54 1	9 3	
575		May	10	M	11	52	20 94		154	32	32 2		
576		Apl	29	R	11	53	50 26	5	129	35	50 5	9 8	
		May	14	M		53	50 07	5		35	49 6	9 6	
577		Feb	25	R	11	56	23 62	5	128	29	56 4	9 0	
		Apl	27	R		56	23 64			29	55 7	9 3	
		May	13	M		56	23 58			29	55 2	8 8	
578	5534 Taylor	Apl	30	R	11	56	40 55		143	57	19 9	8 0	
579	4995 Lacaille	Apl	26	R	11	56	51 06		142	44	26 8	7 8	
580	5535 Taylor	Mar	31	R	11	57	3 46	5	70	25	28 9	8 0	
		May	3	R		57	3 48			25	30 5	7 8	
581	89 R P L	Apl	6	M	11	57	51 03	3	3	39	31 9		
		May	12	M		57	51 57	3		39	35 0		
	s p	Nov	5	M		57	51 06	3		39	33 9		
582		Feb	25	R	11	59	1 15	4	128	27	45 6	8 3	
		Apl	27	R		59	1 28			27	45 1	8 0	
583		Apl	29	R	11	59	44 39	5	144	16	10 7	9 0	
		May	16	M		59	44 27	4		16	11 7	8 0	
584		May	4	R	12	1	37 16	4	130	1	34 8	9 0	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
585	5041 Lacaille	Apl	14	M	12	2	32 88		141	23	14 3	7 9
586		May	5	R	12	2	37 25		141	5	39 5	9 0
587	10 Virginis	Apl	18	R	12	2	43 10		87	20	18 4	
588	2 Corvi ε	Apl	4	M	12	3	8 07	5	111	51	47 8	
			18	M		3	8 14			51	47 9	
			25	R		3	8 03			51	47 1	
		,	26	R		3	8 02			51	47 4	
			27	R		3	8 07	5		51	47 4	
		May	14	M		3	8 16			51	47 1	
		,	17	M		3	8 16			51	47 5	
		,	18	M		3	7 98			51	47 5	
589		May	3	R	12	6	3 08	5	130	11	7 8	9 9
590		Apl	8	M	12	6	12 17		138	27	32 0	8 2
591	5613 Taylor	May	2	R	12	7	55 41		130	22	49 0	8 0
592	69 Ursæ Majoris δ	May	13	M	12	8	40 84		32	12	42 6	
41 07		,	19	M		8	41 ~~11~~ 07			12	42 1	
593		Apl	29	R	12	8	50 14		144	20	13 0	8 8
594	13 Virginis	Mar	22	R	12	11	41 99		91	1	51 6	
			23	R		11	42 14			1	51 0	
595	5648 Taylor	Apl	14	M	12	12	31 23		152	5	58 2	6 9
		May	12	M		12	31 30	5		5	57 2	6 9
31 20			20	M		12	31 ~~07~~ 20			5	57 0	6 8
596	15 Virginis η	Apl	18	R	12	12	56 91		89	54	38 2	
		,,	19	R		12	56 91			54	39 1	
			26	R		12	56 91			54	37 9	
		,	27	R		12	56 89			54	39 4	
			30	R		12	56 88			54	38 9	
		May	16	M		12	56 93			54	39 9	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
597		May	4	R	12	14	3 66	4	143	44	49 8	9 5
598	5119 Lacaille	Apl	8	M	12	15	21 68		138	34	15 4	8 4
599		May	14	M	12	16	46 01		117	9	16 4	8 0
600		Feb	24	R	12	17	24 29		24	43	7 4	8 9
		May	2	R		17	24 15	4		43	7 1	8 5
601		May	5	R	12	18	59 10		113	30	6 0	9 8
602		Apl	27	R	12	19	0 47	5	129	13	17 8	
603	α Crucis (1st)	Apl	21	R	12	19	8 38		152	20	42 1	
		May	18	M		19	8 65	5		20	42 6	
604		May	13	M	12	21	6 90		145	42	20 9	8 0
6 85			19	M		21	6 ~~78~~ 85			42	17 0	8 0
605		Apl	14	M	12	24	38 55		150	58	39 2	8 3
		May	12	M		24	38 61	3		58	38 5	8 2
606		Apl	29	R	12	25	56 04	5	28	2	1 0	7 5
607	21 Virginis q	Feb	24	R	12	26	45 81		98	42	6 2	
		Mar	22	R		26	45 81			42	4 3	
			23	R		26	45 78			42	4 8	
		May	16	M		26	45 74			42	5 0	6 0
		,,	17	M		26	45 89			42	5 9	6 0
608		May	14	M	12	27	4 41		38	0	26 8	8 0
609	9 Corvi β	Apl	21	R	12	27	14 82		112	38	38 0	
		May	5	R		27	14 84			38	39 3	
			6	R		27	14 94			38	39 1	
			7	R		27	14 85			38	39 3	
610		May	4	R	12	27	49 34	5	140	55	32 3	9 2

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation	Observer	Mean Right Ascension 1864 h	m	s	No of Wires	Mean Polar Distance 1864 °	′	″	Magnitude
	611	T Ursæ Majoris Var 3	Mar 31	R	12	30	11 19	6	29	45	49 3	9 5
			May 3	R		30	11 09			45	49 6	8 0
11 24			19	M		30	11 ~~30~~ 24			45	49 6	7 5
	612		May 24	R	12	30	50 84	5	142	19	41 5	9 2
	613	R Virginis Var 2	Apl 22	R	12	31	35 78		82	15	46 4	9 5
			May 13	M		31	35 88			15	47 8	6 9
			18	M		31	35 82			15	47 6	6 1
3590			20	M		31	35 90			15	47 7	6 6
	614		Apl 30	R	12	32	8 63	5	29	14	18 8	10 0
			May 2	R		32	8 53			14	21 4	9 5
	615	26 Virginis χ	Feb 24	R	12	32	13 80		97	14	47 9	
			Apl 19	R		32	13 77	5		14	47 9	
			20	R		32	13 76			14	48 2	
			May 16	M		32	13 72			14	47 9	6 0
	616		Apl 28	R	12	32	51 66		28	13	23 1	7 0
	617	5830 Taylor	May 12	M	12	34	26 89		144	0	51 4	7 5
	618	XII 592 W B E	Apl 13	M	12	36	1 17		93	17	48 5	8 0
			14	M		36	1 29			17	48 6	8 0
			15	M		36	1 43			17	48 7	8 0
	619	S Ursæ Majoris Var 2	Apl 22	R	12	37	58 27		28	9	41 7	9 5
			May 5	R		37	58 37			9	42 6	9 9
	620		Apl 5	M	12	39	36 14		94	1	52 6	9 6
			6	M		39	36 24			1	53 6	9 7
			7	M		39	36 36			1	51 6	9 6
	621		May 14	M	12	40	49 04	5	141	52	54 0	7 9
	622		May 7	R	12	41	40 06	5	141	49	33 0	8 0
341	623		May 19	M	12	42	3 ~~34~~ 41		147	16	27 3	9 2

Separate Results of Madras Meridian Circle Observations in 1861

Number	Star	Date of Observation		Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			
					h	m	s		°	′	″	
624		May	13	M	12	42	17 38		112	51	56 9	8 7
625		May	26	R	12	42	51 08		130	25	15 [illegible]	9 3
626		May	12	M	12	43	17 33		129	7	50 7	8 1
627		Apl	28	R	12	43	26 16	5	83	19	11 1	8 8
		May	5	R		43	26 02			19	11 8	9 0
		„	20	M		43	26 04			19	11 4	8 [illegible]
26 04		„	21	R		43	26 09	5		~~22~~	16 0	9 0
628	U Virginis Var 3	Apl	29	R	12	44	11 66	5	83	12	18 4	8 7
		May	3	R		44	11 77			12	1 9	4 4
		„	6	R		44	11 92	5		42	21 3	9 8
629	2922 Radcliffe	May	18	M	12	45	6 74		26	16	27 1	6 2
630		Apl	28	R	12	45	10 16	4	83	19	5 4	9 7
		May	5	R		45	10 04			19	7 0	9 8
		„	21	R		45	10 17	5		19	7 7	9 0
631	10 Virginis ψ	Apl	19	R	12	47	16 91		98	17	58 2	
		„	20	R		47	17 05			17	58 4	
632	99 R P L	May	17	M	12	48	9 91	2	5	50	52 8	
633		May	14	M	12	49	23 85	6	115	14	11 4	7 8
634	12 Can Venaticorum	Apl	22	R	12	49	39 68		50	50	47 9	
		„	26	R		49	39 62			50	47 9	
		May	3	R		49	39 62			50	48 5	
		„	4	R		49	39 60			50	47 7	
		„	6	R		49	39 53			50	47 4	
		„	7	R		49	39 62			50	48 6	
		„	13	M		49	39 73			50	48 6	
		„	16	M		49	39 64			50	47 1	
		„	19	M		49	39 ~~60~~ 58	3		50	48 7	
		„	25	R		49	39 58			50	48 3	
		„	26	R		49	39 63			50	48 5	

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s		°	′	″		
635	5974 Taylor	May	28	R	12	51	54 65		143	38	34 3	8 7	
636		May	20	M	12	53	16 4~~0~~ 9		143	40	22 3	8 8	
637		May	24	R	12	54	37 89		139	18	22 8	9 2	
638		Apl	22	R	12	56	10 93	3	113	12	31 8	10 2	
			25	R		56	11 09	4		12	32 0	10 3	
639	5381 Lacaille	May	25	R	12	57	7 84		129	57	6 1	8 8	
640		May	14	M	12	58	6 33	6	124	28	41 2	9 1	
			19	M		58	6 1~~6~~ 3	5		28	42 0	9 0	6 13
641	50 Virginis	Mar	23	R	13	2	38 28		99	36	11 9		
		May	17	M		2	38 32			36	10 9	6 0	
			18	M		2	38 25			36	11 1	6 0	
642	51 Virginis θ	Apl	28	R	13	2	54 61		94	48	43 3		
			29	R		2	54 58			48	43 3		
		May	3	R		2	54 57			48	44 3		
			4	R		2	54 58			48	43 4		
		,	7	R		2	54 60			48	43 8		
			12	M		2	54 50			48	44 1		
			13	M		2	54 55			48	44 6		
			16	M		2	54 58			48	45 0		
			24	R		2	54 62			48	44 8		
			25	R		2	54 57			48	44 9		
		,	26	R		2	54 56			48	43 8		
643		May	31	R	13	4	32 13	4	138	10	~~22 3~~	9 0	32 3
644	W Virginis Var 1	Feb	25	R	13	6	54 20	5	105	49	53 3		
		Apl	18	R		6	54 17	4		49	55 4	9 5	
			25	R		6	54 19			49	54 9	8 0	
		May	20	M		6	54 1~~7~~ 9			49	55 1	7 7	54 19
645		May	14	M	13	9	45 48		129	56	15 3	8 0	
		,	19	M		9	45 4~~6~~ 9			56	16 0	8 2	45 49

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
646	58 Virginis	Mar	23	R	13	10	19 73		99	49	42 7	
647	101 R P L	Apl	26	R	13	10	26 73	3	1	37	17 0	
		May	5	R		10	26 00	3		37	18 5	
	s p	Oct	27	R		10	25 61	3		37	17 3	
648	6129 Taylor	May	18	M	13	12	12 90	3	130	28	30 9	7 1
13 08			21	M		12	13 08 ~~12 99~~			28	29 8	7 1
649		Apl	29	R	13	12	58 10		122	56	34 2	7 8
650	5503 Lacaille	Apl	12	M	13	14	8 90		125	23	51 8	7 8
		May	31	R		14	8 93			23	50 9	
651	13563 O A N	May	30	R	13	15	24 40		27	53	14 0	8 5
652		May	24	R	13	15	47 75		145	12	51 0	8 8
653	67 Virginis α (*Spica*)	Feb	25	R	13	18	1 87		100	27	1 9	
		Apl	20	R		18	1 87			27	1 8	
			21	R		18	1 82			27	2 3	
			28	R		18	1 85			27	1 6	
			29	R		18	1 89			27	1 1	
		May	3	R		18	1 89			27	2 7	
		„	12	M		18	1 81			27	2 2	
		„	13	M		18	1 80			27	1 7	
		„	14	M		18	1 85			27	1 1	
		„	17	M		18	1 90			27	2 6	
17			20	M		18	1 74 5			27	2 5	
84			21	M		18	1 87 4			27	1 0	
			26	R		18	1 86			27	2 0	
		June	14	M		18	1 86			27	1 6	
654	V Virginis Var 7	Apl	16	R	13	20	46 90		92	37	59 2	9 3
655	R Hydræ Var 1	May ~~Mar~~	16	M	13	22	17 30		112	34	38 9	5 5
656		Apl	27	R	13	23	18 12	3	88	38	~~7 3~~	10 8 12.5
657	6257 Taylor	June	2	R	13	25	36 07	6	148	48	21 6	8 5

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
	658	76 Virginis h	Apl	20	R	13	25	48 62		99	27	46 9	
				21	R		25	48 37			27	47 3	
			June	15	R		25	48 47	5		27	48 0	
	659	S Virginis Var 6	Apl	12	M	13	25	54 01		96	29	41 5	7 7
			May	23	R		25	53 94			29	42 2	6 3
	660		June	3	R	13	26	37 79	5	131	35	11 9	8 8
	661	79 Virginis ζ	Apl	28	R	13	27	45 90		89	53	58 3	
				29	R		27	45 89			53	58 6	
				30	R		27	45 90			53	58 7	
			May	2	R		27	45 93			53	59 3	
				3	R		27	45 86			53	59 6	
				4	R		27	45 91	5		53	58 6	
				5	R		27	45 81			53	58 9	
			,	10	M		27	45 78			53	59 0	
				13	M		27	45 88			53	58 9	
				14	M		27	45 85			53	57 6	
				17	M		27	45 89			53	59 0	
				19	M		27	45 ~~87~~ 88			53	58 8	
45 88 87				20	M		27	45 ~~88~~ 87			53	59 3	
				21	M		27	45 90			53	57 1	
				30	R		27	45 86			53	58 5	
	662		May	21	R	13	36	31 14	5	144	38	18 4	9 0
			June	2	R		36	31 17	6		38	18 5	9 5
	663	6363 Taylor	May	25	R	13	36	38 28		147	33	27 4	8 8
	664		May	2	R	13	37	30 52	5	123	48	3 5	9 7
				30	R		37	30 21	5		48	3 2	9 5
31 25	665		May	20	M	13	37	31 ~~19~~ 25		128	40	16 9	7 7
	666		May	3	R	13	38	13 85	6	122	47	5 3	8 7
13 50				19	M		38	13 ~~87~~ 50	6		47	3 1	8 4
	667		May	16	M	13	38	33 84	5	152	45	59 9	8 0
33 61				21	M		38	~~34 10~~ 33 61	3		45	59 9	8 3

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
668		May	4	R	13	40	30 30		129	24	0 6	9 2
669	85 Ursæ Majoris η	Apl	30	R	13	42	10 62		40	0	21 9	
		May	7	R		42	10 59			0	25 6	
			23	R		42	10 66			0	25 8	
670		May	5	R	13	43	14 30		123	6	31 9	8 7
			17	M		43	14 47			6	31 9	8 0
671		May	18	M	13	43	24 14	5	123	13	4 9	8 2
672		May	23	R	13	44	15 25		127	56	40 9	
673		May	30	R	13	45	23 48		128	23	4 5	9 0
674		May	3	R	13	45	42 35		122	54	30 9	8 5
			31	R		45	42 44	5		54	31 7	
675	8 Bootis γ	Apl	30	R	13	48	12 51		70	55	10 7	
		May	2	R		48	12 47			55	10 1	
			4	R		48	12 56	5		55	10 7	
			6	R		48	12 50			55	10 5	
			7	R		48	12 45			55	10 1	
			10	M		48	12 53			55	10 7	
			19	M		48	12 54			55	11 4	
			20	M		48	12 63			55	11 1	
			23	R		48	12 49			55	10 3	
			24	R		48	15 52			55	10 3	
			25	R		48	12 47			55	10 4	
		June	2	R		48	12 50			55	10 2	
			14	M		48	12 47			55	9 3	
676		Apl	19	R	13	50	11 63	4	123	43	43 6	8 3
		May	5	R		50	11 60			43	44 4	8 2
677		Apl	19	R	13	50	40 64	5	123	43	55 5	8 0
678		May	13	M	13	53	7 78	5	135	40	51 4	8 4

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Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
	679	93 Virginis τ	Apl	22	R	13	54	43 57		87	47	44 9	
				28	R		54	43 56			47	45 1	
				29	R		54	43 57			47	44 2	
				30	R		54	43 59			47	44 9	
			May	12	R		54	43 60			47	45 5	
				14	M		54	43 50			47	44 9	
				23	R		54	43 57			47	46 4	
				24	R		54	43 54			47	45 7	
			,	25	R		54	43 64			47	45 7	
				28	R		54	43 66			47	45 7	
				30	R		54	43 60			47	45 5	
			June	2	R		54	43 61			47	45 2	
				14	M		54	43 49			47	45 0	
4 99	680	5794 Lacaille	May	21	M	13	57	4 80 99		152	47	34 6	6 3
	681	6585 Taylor	May	5	R	14	1	22 44		124	14	3 6	7 7
	682		May	24	R	14	2	25 92	4	129	4	15 8	9 0
			June	3	R		2	25 99			4	14 5	9 0
	683	U Bootis Var 4	Apl	22	R	14	4	21 56	4	79	32	32 1	9 2
			May	28	R		4	21 70			32	31 3	9 5
			June	2	R		4	21 67	5		32	33 2	9 7
	684	6616 Taylor	May	14	M	14	5	30 32		146	26	48 4	5 7
	685	98 Virginis χ	May	18	M	14	5	38 69	3	99	38	19 9	
38 57				19	M		5	38 55 7			38	20 4	
	686		May	12	M	14	6	8 79		135	1	18 1	8 2
	687	16 Bootis α (*Arcturus*)	May	23	R	14	9	27 52		70	6	29 8	
				28	R		9	27 51			6	29 5	
			June	2	R		9	27 58			6	30 5	
				4	R		9	27 52			6	29 6	
				7	R		9	27 54			6	29 5	
			,	10	M		9	27 60			6	31 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°			
688	100 Virginis λ	Apl	21	R	14	11	45 23		102	44	35 4	
			22	R		11	45 13			44	36 1	
		May	18	M		11	45 12			44	36 1	
		June	15	R		11	45 31			44	35 6	
			16	R		11	45 15	5		44	36 0	
689		May	5	R	14	12	30 81		136	49	53 7	9 6
690		May	23	R	14	14	34 45	5	122	35	14 2	9 0
		June	27	M		14	34 30	4		35	44 9	8 8
691		May	14	M	14	15	19 50	6	122	11	35 6	8 7
692	6709 Taylor	June	3	R	14	15	58 65		119	3	19 6	7 0
693	2 Libræ	Apl	22	R	14	16	6 76		101	5	28 8	
694	5926 Lacaille	May	28	R	14	16	40 24		118	59	57 9	8 8
		June	2	R		16	40 19	4		59	58 6	7 5
			7	R		16	40 29	4		59	58 1	8 5
695	6721 Taylor	Apl	21	R	14	17	22 38	5	101	3	1 7	
696		June	4	R	14	17	24 96		123	13	23 0	10 0
697	6740 Taylor	May	24	R	14	19	5 13	4	133	42	56 5	7 2
			31	R		19	5 10	5		42	55 0	7 7
		June	29	M		19	5 01			42	56 5	7 5
698		May	28	R	14	21	57 61	4	122	33	58 6	9 3
699	5962 Lacaille	Apl	27	R	14	22	42 28		129	46	41 0	7 5
700		June	17	R	14	23	42 53		36	54	23 6	
701		May	23	R	14	24	12 79	5	123	48	36 4	8 8
		July	1	M		24	12 71			48	35 2	8 0
702	14634 O A N	June	16	R	14	25	51 40	3	20	8	24 1	7 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No. of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
703	25 Bootis ρ	May	6	R	14	25	58.01		59	1	48.8	
			21	M		25	58.13			1	48.4	
			30	R		25	58.01			1	49.5	
			31	R		25	58.11			1	49.5	
		June	2	R		25	58.01			1	49.3	
			3	R		25	57.99			1	49.2	
			4	R		25	58.07			1	49.3	
			8	R		25	58.10			1	49.7	
704	11652 O. A. N.	June	16	R	14	27	1.13	4	20	6	57.6	8.5
705	R Camelopardi Var. 1	May	5	R	14	28	9.31	1	5	33	16.5	10.8
706		May	24	R	14	29	26.79		124	55	30.2	8.0
707	α Centauri	June	4	R	14	30	23.05		150	16	24.1	
			15	R		30	23.09			16	23.9	
708		May	23	R	14	32	42.12		121	44	17.9	8.3
709	α Lupi	June	3	R	14	32	54.02	4	136	48	6.9	5.8
710	36 Bootis ε	May	18	M	14	39	2.87		62	21	3.6	
			28	R		39	2.80			21	2.9	
			30	R		39	2.94			21	4.0	
		June	3	R		39	2.95	5		21	4.7	
			4	R		39	2.81			21	3.7	
			8	R		39	2.87			21	4.1	
			15	R		39	2.79			21	3.7	
			16	R		39	2.76			21	3.1	
			17	R		39	2.83			21	3.4	
			24	M		39	2.81			21	3.8	
		July	7	R		39	2.79			21	3.2	
20 40 711		May	21	M	14	39	20.~~33~~ 40	5	124	9	35.2	7.7
		June	2	R		39	20.47			9	34.9	7.7
712		May	2	R	14	42	24.90	5	129	6	51.0	8.8
			23	R		42	24.77			6	50.3	8.7

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
713	9 Libræ α^2	Apl	22	R	14	43	21 42		105	28	28 2	
		May	19	M		43	21 52 4			28	28 1	
			20	M		43	21 53 5			28	28 9	
		June	3	R		43	21 46			28	28 0	
			4	R		43	21 50			28	28 4	
			7	R		43	21 53			28	27 9	
			14	M		43	21 57			28	27 7	
			15	R		43	21 57			28	28 2	
			17	R		43	21 57			28	~~27 6~~	
			18	R		44	21 58			28	28 1	
			21	M		43	21 47	2		28	27 6	
		July	7	R		43	21 53			28	27 5	
714	7 Ursæ Min β Var 1	May	28	R	14	51	8 11	5	15	17	19 1	
715		May	23	R	14	51	23 24	5	39	19	38 3	9 1
716		June	27	M	14	51	35 46		123	12	43 3	9 0
717	6991 Taylor	May	21	M	14	51	52 26 ~~52 67~~		30	48	49 7	6 4
718	15004 O A N	May	23	R	14	53	52 88	5	39	21	3 3	7 5
719	15023 O A N	June	16	R	14	55	39 17	5	27	47	28 9	7 5
720	43 Bootis ψ	May	18	M	14	58	37 09		62	31	15 0	
			28	R		58	37 04			31	13 7	
			31	R		58	37 16			31	13 6	
		June	7	R		58	37 05			31	14 6	
			8	R		58	37 12			31	14 8	
			15	R		58	37 02			31	13 9	
			18	R		58	37 08			31	14 1	
		July	8	M		58	37 09			31	14 6	
721	7079 Taylor	June	27	M	15	3	19 98		123	7	14 8	6 7
722	15138 O A N	May	25	R	15	4	7 39		43	0	6 3	9 2
723	24 Libræ ι^1	May	19	M	15	4	28 20 2		109	16	28 8	
			20	M		4	28 32 4	3		16	29 4	

21 54
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Separate Results of Madras Meridian Circle Observations in 1864

44 18	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s					
	724	/// ~~III~~ R P L	May	21	M	15	5	44 18 ~~45 19~~	3	5	31	23 7	
	725	27 Libræ β	Apl	22	R	15	9	41 44		98	52	43 6	
			June	10	M		9	41 49			52	44 6	
				15	R		9	41 52	5		52	42 7	
				16	R		9	41 45			52	43 3	
				30	M		9	41 46			52	43 6	
			July	4	M		9	41 32			52	43 5	
				11	M		9	41 39			52	43 9	
	726		May	25	R	15	14	12 39		123	7	30 8	9 5
	727		June	16	R	15	20	23 60		130	8	35 3	8 7
				27	M		20	23 57	5		8	34 3	8 8
			July	1	M		20	23 53			8	34 4	8 7
	728	32 Libræ ο[1]	June	17	R	15	20	35 48		106	14	22 2	
	729		May	25	R	15	21	40 06	5	129	25	58 8	7 5
	730	XV 395 W B E	July	9	M	15	21	58 56		101	15	29 5	8 9
			,	25	R		21	58 55	5		15	31 5	8 8
	731	114 R P L sp	Dec	20	R	15	22	29 01	2	2	14	59 0	
	732	XV 429 W B E	July	22	R	15	24	2 45		101	28	29 1	9 2
			,	25	R		24	2 69	4		28	30 8	9 5
	733	7240 Taylor	May	13	M	15	24	24 18		130	1	28 8	7 5
	734	3394 Radcliffe	June	18	R	15	25	3 61	5	41	49	6 2	8 0
	735	38 Libræ γ	Apl	22	R	15	27	55 18	6	104	20	0 5	
				23	R		27	55 20			20	0 6	
			June	16	R		27	55 37	4		19	59 9	
				17	R		27	55 31			19	59 5	
	736	5 Coronæ Borealis α	June	3	R	15	28	55 75		62	49	33 1	
			,	29	M		28	55 88			49	33 7	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
				h	m	s		°				
736	5 Corona Borealis α	June 30	M	15	28	55 82		62	49	32 9		
		July 4	M		28	55 78			49	31 0		
		8	M		28	55 82			49	31 2		
737		June 4	R	15	29	12 53	5	119	40	28 0	9 8	
738		May 25	R	15	30	9 95	5	129	33	27 5	9 0	
739	28530 Lalande	June 18	R	15	31	50 66		47	25	19 7	9 5	
740	XV 645 W B E	June 17	R	15	34	22 72		102	19	14 3		
		27	M		34	22 49	4		19	15 7	8 2	
		29	M		34	22 52	4		19	~~18 6~~	8 1	17 6
741	XV 675 W B E	June 7	R	15	35	56 53	5	102	41	26 2	9 3	
		July 1	M		35	56 31			41	26 5	9 1	
		4	M		35	56 45	3		41	27 2	9 3	
742	24 Serpentis α	Apl 23	R	15	37	34 26		83	8	38 6		
		June 16	R		37	34 20			8	39 4		
		30	M		37	34 13			8	39 3		
		July 7	R		37	34 15			8	38 9		
		8	M		37	34 18			8	39 7		
		11	M		37	34 15			8	39 2		
		22	R		37	34 20			8	38 9		
743		May 25	R	15	41	26 70		62	3	16 3	9 2	
		, 28	R		41	26 74			3	16 2	9 7	
744		May 23	R	15	42	32 18	4	61	46	38 9	10 0	
745	R Serpentis Var 2	July 1	M	15	44	25 44	5	74	27	~~6 7~~	7 4	6 8
746	3462 Radcliffe	June 18	R	15	46	~~28 61~~		47	1	30 6	8 0	20 61
747	28970 Lalande	July 23	R	15	47	57 96	5	70	49	3 7	7 8	
748	28980 Lalande	May 26	R	15	48	54 38		104	25	44 3		
		July 9	M		48	54 48			25	44 9	6 1	
		11	M		48	54 25			25	44 8	6 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
749	16 Ursæ Minoris 3	June	4	R	15	48	59 52	5	11	47	18 8	
		July	22	R		48	59 57	5		47	20 7	
750		May	31	R	15	49	24 75	5	103	59	0 0	8 9
		July	2	M		49	24 78			59	0 4	9 0
			25	R		49	24 63	3		59	2 6	
751	29051 Lalande	June	2	R	15	50	30 71	5	104	3	35 5	7 8
			3	R		50	30 60	5		3	35 6	8 9
			7	R		50	30 71			3	35 3	9 0
752	8 Scorpii β^1	Apl	23	R	15	57	31 91		109	25	47 8	
		May	20	M		57	31 9~~1~~2			25	49 5	
			21	M		57	31 ~~87~~90			25	47 1	
		June	27	M		57	31 96			25	49 1	
			28	M		57	31 96			25	48 5	
		July	4	M		57	31 91			25	49 2	
			25	R		57	32 05	5		25	49 5	
753		May	25	R	15	59	58 63	5	105	16	21 9	8 2
		„	28	R		59	58 57	5		16	22 7	8 5
		July	1	M		59	58 43	5		16	21 8	8 2
754	15281 O A S	May	23	R	16	0	58 50	6	105	43	43 4	9 3
		„	31	R		0	58 49	6		43	43 4	9 3
		June	2	R		0	58 43	5		43	42 7	9 4
755	14 Scorpii ν	Apl	23	R	16	4	5 58	4	109	6	15 5	
		May	20	M		4	5 7~~1~~9			6	15 9	
756	116 R P L s p	Jan	4	M	16	4	43 76	5	4	18	46 2	
757	15412 O A S	May	28	R	16	6	18 76	6	106	3	7 9	9 5
		June	3	R		6	18 47			3	7 8	9 5
			7	R		6	18 53			3	7 6	9 0
758	15418 O A S	May	25	R	16	6	30 88		106	11	31 1	8 5
			31	R		6	30 99			11	30 5	8 8
		July	4	M		6	30 85	5		11	31 8	8 8

Separate Results of Madras Meridian Circle Observations in 1861

Number	Star	Date of Observation		Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			Magnitude
					h	m	s					
759	1 Ophiuchi δ	June	16	R	16	7	13 18		93	20	30 6	
			27	M		7	13 17			20	30 3	
		,	28	M		7	13 19			20	30 2	
			29	M		7	13 21			20	30 6	
		July	22	R		7	13 21			20	30 8	
760	15544 O A S	May	25	R	16	12	46 68		106	15	5 7	8 7
		,	28	R		12	46 76	5		15	6 8	8 7
			31	R		12	46 76			15	6 4	8 7
761	20 Scorpii σ	Apl	23	R	16	12	55 49		115	15	47 0	
		June	17	R		12	55 60			15	47 1	
			18	R		12	55 47			15	48 0	
762	15552 O A S	July	1	M	16	13	13 89	3	107	22	1 0	9 2
763		June	16	R	16	15	46 22		128	7	41 2	8 9
764	21 Scorpii α (*Antares*)	Apl	23	R	16	21	4 29		116	7	37 1	
		June	7	R		21	4 35			7	36 7	
		,	17	R		21	4 32			7	37 2	
			18	R		21	4 31			7	36 2	
			27	M		21	4 33			7	36 9	
			28	M		21	4 30			7	36 7	
			29	M		21	4 30			7	37 2	
			30	M		21	4 31			7	37 3	
		July	22	R		21	4 28			7	36 4	
			23	R		21	4 42			7	37 0	
765	30 Herculis *g* Var 5	June	16	R	16	24	10 48		17	40	3 4	5 5
766	13 Ophiuchi 3	July	18	R	16	29	40 28		100	17	19 7	
767	5784 Brisbane	May	25	R	16	30	51 60	5	150	39	26 0	9 5
768	40 Herculis 3	June	21	R	16	36	9 62		58	8	57 3	
		July	1	M		36	9 58			8	57 2	
			4	M		36	9 71			8	58 1	
			11	M		36	9 65			8	58 3	
		,	18	R		36	9 57			8	57 1	

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864 h	m	s	No. of Wires	Mean Polar Distance 1864 °	′	″	Magnitude
	768	40 Herculis ζ	July	23	R	16	36	9·57		58	8	56·7	
				25	I		36	9·53			8	57·9	
63 38	769		June	4	R	16	41	~~52·56~~	5	75	16	44·4	10·0
	770	27 Ophiuchi κ	June	25	M	16	51	13·85		80	24	39·3	
				29	M		51	13·77			24	40·8	
			July	18	R		51	13·78			24	40·2	
				25	R		51	13·84			24	40·4	
			Aug	5	M		51	13·85			24	39·4	
				8	M		51	13·80			24	40·6	
				13	M		51	13·86			24	39·4	
	771	16232 O A S	July	22	P	16	53	57·53	5	110	14	43·5	9·8
	772	16233 O A S	July	11	M	16	53	58·62		110	23	35·0	8·0
16 75	773		June	4	R	16	55	~~15·87~~		109	56	33·8	7·7
	774	22 Ursæ Minoris ε s p	Feb	9	M	17	0	1·71	5	7	44	43·4	
			June	16	R		0	1·59	5		44	39·4	
			July	18	R		0	1·38	5		44	40·8	
			Aug	8	M		0	1·53	3		44	40·2	
				11	M		0	1·04	3		44	39·8	
		s p	Dec	15	R		0	1·20	6		44	44·6	
34 90	775	35 Ophiuchi η	May	21	M	17	2	34·~~57~~ 50		105	33	9·1	
			June	18	R		2	34·86	4		33	11·5	
	776		July	22	R	17	5	44·18		130	0	23·7	9·0
	777	64 Herculis α Var 1	June	21	R	17	8	26·73		75	27	8·5	
			July	1	M		8	26·78			27	8·8	
			„	11	M		8	26·76			27	9·4	
			„	18	R		8	26·78			27	7·8	
				21	R		8	26·80			27	7·9	
				26	R		8	26·73			27	7·2	
			Aug	5	M		8	26·72			27	9·0	
				12	M		8	26·83			27	8·7	

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s		°			
	778		June	29	M	17	9	1 79		124	4	16 2	8 2
[58 18]	779		July	22	R	17	11	~~57 45~~ 58 18		130	27	39 3	9 8
21 36	780	8017 Taylor	May	21	M	17	13	21 36	3	114	45	51 2	
			June	17	R		13	21 22			45	55 4	
			Aug	15	M		13	21 16			45	54 1	6 7
	781	42 Ophiuchi θ	June	18	R	17	13	39 55		114	51	55 7	
			July	21	R		13	39 49	5		51	37 1	
				26	R		13	39 54			51	36 3	
			Aug	5	M		13	39 65			51	37 0	
				13	M		13	39 41			51	36 0	
	782	44 Ophiuchi b	Aug	13	M	17	18	3 97		114	2	48 4	5 0
	783	δ Aræ	June	17	R	17	18	49 75		150	33	54 6	
			July	1	M		18	49 58	3		33	56 7	6 7
	784		July	22	R	17	21	22 44	5	130	33	55 8	8 3
	785		Aug	15	M	17	21	22 60	5	130	50	57 0	8 4
	786		July	11	M	17	28	25 03		125	14	39 7	8 7
	787	55 Ophiuchi α	June	21	R	17	28	37 28		77	20	18 1	
			July	1	M		28	37 21			20	18 6	
				26	R		28	37 23			20	17 9	
			Aug	5	M		28	37 23			20	18 5	
				8	M		28	37 27			20	19 1	
	788		July	22	R	17	29	22 89		130	56	24 1	8 9
	789		July	22	R	17	34	34 46	5	126	15	0 4	9 3
	790		July	22	R	17	39	16 94	5	127	17	24 4	9 8
	791		July	18	R	17	39	43 84		127	14	36 4	8 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
				h	m	s		°	'	"		
792	86 Herculis μ	July 1	M	17	41	8 23		62	11	52 5		
		Aug 12	M		41	8 16			11	52 2		
793	31 Draconis ψ (1st)	June 18	R	17	44	22 18		17	47	6 9	6 5	
794		Aug 9	M	17	45	2 69		128	47	39 5	8 9	
795	7504 Lacaille	Aug 8	M	17	48	32 17		129	~~7~~	48 6	7 0	6
796		July 22	R	17	50	25 24		130	50	22 0	8 8	
		25	R		50	25 27	5		50	23 5	9 0	
		Aug 5	M		50	25 08	5		50	22 4	8 4	
797	7518 Lacaille	Aug 15	M	17	52	43 11	3	149	12	14 6	7 0	
798	33 Draconis γ	Aug 12	M	17	53	26 91		38	29	39 1		
799	8355 Taylor	Aug 9	M	17	56	59 84		133	25	39 0	5 5	
800		July 25	R	18	1	13 86		131	43	35 8	9 7	
		Aug 5	M		1	13 65			43	34 1	8 7	
801		July 25	R	18	2	49 27	5	131	44	29 2	9 0	
802	Γ Herculis Var 4	Aug 16	R	18	3	57 37		~~58~~	~~59~~	~~52 7~~	8 2	— 59 0 44
803	13 Sagittarii μ^1	Aug 8	M	18	5	37 79		111	5	26 2		
		9	M		5	37 76			5	27 7		
		12	M		5	37 68			5	28 3		
		15	M		5	37 75			5	28 6		
804	15 Sagittarii	Aug 13	M	18	7	6 02		110	45	54 7	5 0	
805	8461 Taylor	Aug 15	M	18	14	24 47		134	10	24 8	6 1	
806	23 Ursae Minoris δ s p	Feb 11	M	18	16	13 73	3	3	23	45 3		
	s p	15	M		16	13 32	3		23	44 3		
	s p	,, 16	R		16	13 35	3		23	48 6		
		Aug 16	R		16	13 02	3		23	47 9		
	s p	Dec 15	R		16	13 53	2		23	47 1		

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
807	21 Sagittarii	Aug	13	M	18	17	14 94		110	36	40 7	5 0
808	δ Telescopii	July	18	R	18	21	58 12	5	135	50	44 8	6 7
		Aug	15	M		21	58 25	5		50	47 2	6 3
809		July	25	R	18	22	51 47	5	135	15	54 9	9 0
810	θ Coronæ Australis	Aug	20	R	18	23	47 14		132	24	22 3	6 0
811	3 Lyræ α (*Vega*)	Aug	8	M	18	32	20 05		51	20	29 0	
			9	M		32	19 95			20	29 6	
			12	M		32	19 94			20	28 9	
			15	M		32	19 95			20	29 4	
812	R Scuti Var 1	Aug	22	R	18	40	13 20		95	50	53 3	6 0
813	7872 Lacaille	Aug	20	R	18	42	20 14	5	136	45	1 7	6 0
814	7878 Lacaille	Aug	20	R	18	42	53 19	4	136	44	39 6	7 0
815	10 Lyræ β Var 1	Aug	23	R	18	45	3 46		56	47	36 4	
			29	R		45	3 37			47	36 6	
		Sep	9	M		45	3 40			47	36 5	
816		Aug	26	R	18	46	54 04		137	44	56 1	9 7
817	37 Sagittarii ξ²	July	18	R	18	49	36 78		111	16	55 7	
818	13 Lyræ Var 2	Aug	12	M	18	51	11 38		46	13	54 3	
819		July	18	R	18	54	10 28	6	122	56	13 3	8 3
		Aug	29	R		54	10 57			56	13 0	7 5
820		Aug	16	R	18	57	17 47	5	111	21	9 2	9 9
			22	R		57	17 37	5		21	8 6	10 0
821	17 Aquilæ 3	Aug	9	M	18	59	9 49		76	20	11 5	
			11	M		59	9 43			20	11 5	
			29	R		59	9 46			20	11 2	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	'	"	
821	17 Aquilæ 3	Aug	31	R	18	59	9 37	5	76	20	12 2	
		Sep	2	M		59	9 54			20	12 0	
			9	M		59	9 42			20	10 7	
			10	M		59	9 14			20	12 5	
822		Aug	5	M	19	0	51 71		82	1	34 1	
823	41 Sagittarii π	July	18	R	19	1	40 55		111	11	~~4 9~~ 12 3	
824		Aug	24	R	19	3	6 08	5	139	22	42 7	9 0
825		July	11	M	19	3	13 46		122	51	5 7	8 0
		Aug	8	M		3	13 51			51	6 4	8 0
826	T Sagittarii Var 3	Aug	8	M	19	8	23 15		107	12	22 4	7 9
			11	M		8	23 18			12	24 1	7 9
			12	M		8	23 23			12	22 2	8 0
			13	M		8	23 15	5		12	22 4	8 1
827	R Sagittarii Var 1	Aug	26	R	19	8	42 57	5	109	~~27~~ 32	~~48 4~~ 48 5	10 0
828		Aug	23	R	19	9	6 37	5	109	32	47 9	9 5
829	43 Sagittarii d	Aug	15	M	19	9	40 56		109	11	30 8	5 0
830		Sep	12	M	19	10	0 19	6	107	9	40 9	8 1
831	25 Aquilæ ω	Aug	9	M	19	11	25 79		78	38	50 7	
			16	R		11	25 84			38	51 3	
			29	R		11	25 96	5		38	51 0	
			31	R		11	25 92			38	50 8	
832	44 Sagittarii ρ^1	Aug	15	M	19	13	46 80		108	6	1 0	
833		~~June~~ Aug	26	R	19	16	34 39		129	52	46 3	8 0
		Sep	13	M		16	34 32			52	46 7	8 2
			14	M		16	34 45			52	46 9	8 3
834	30 Aquilæ δ	Aug	13	M	19	18	38 37		87	9	14 1	
			16	R		18	38 39			9	13 9	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°			
834	30 Aquilæ δ	Aug	22	R	19	18	38 30		87	9	16 9	
			29	R		18	38 34			9	13 6	
		Sep	2	M		18	38 32			9	11 2	
			5	M		18	38 38			9	15 1	
		~~Aug~~	15	M		18	38 46			9	13 7	
835	52 Sagittarii h^2	Aug	13	M	19	28	25 68		115	10	50 1	
			15	M		28	25 54			10	45 7	
			16	M		28	25 58			10	49 6	
		Sep	9	M		28	25 71	4		10	50 3	
			14	M		28	25 69			10	50 6	
836	8173 Lacaille	Aug	23	R	19	31	36 73		143	15	31 5	8 8
837	R Cygni Var 3	Aug	20	R	19	33	12 38		40	4	50 2	9 9
			22	R		33	12 21	5		4	51 2	9 5
838		Aug	24	R	19	34	23 47		127	17	3 4	9 0
839	50 Aquilæ γ	Aug	22	R	19	39	47 18		79	42	57 5	
			24	R		39	47 15			42	58 0	
			26	R		39	47 51			42	56 8	
840	S Vulpeculæ Var 3	Aug	20	R	19	42	49 21		63	3	1 5	9 6
			23	R		42	49 31	5		3	2 0	
841	53 Aquilæ α (*Altair*)	Aug	17	M	19	44	8 77		81	29	19 0	
			31	R		44	8 80			29	17 3	
842	χ Cygni Var 2	Aug	8	M	19	45	20 34		57	25	43 3	6 0
			9	M		45	20 38			25	42 6	6 0
843	55 Aquilæ η Var 1	Aug	5	M	19	45	32 45		89	20	27 9	
844	60 Aquilæ β	Aug	17	M	19	48	37 94		83	55	51 8	
			20	R		48	37 85			55	50 1	
		Sep	2	M		48	37 79			55	50 7	
			10	M		48	37 77			55	51 1	
845		Sep	14	M	19	49	33 81		145	56	51 6	8 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s						
846		July	25	R	19	53	0 42	5	147	10	53 4	9 0	
		Sep	15	M		53	0 30	5		10	52 9	9 0	
847		Oct	1	M	19	55	35 36	3	151	51	39 1	9 1	
848	9208 Taylor	Aug	8	M	19	55	41 71	3	122	26	5 9	5 2	
			13	M		55	41 78			26	6 0	5 3	
849	λ Ursæ Minoris s p	Feb	19	R	20	0	6 69	3	1	5	54 7		
	s p		26	R		0	7 23	1		5	54 9		
		Aug	23	R		0	6 86	7		5	54 9		
		Sep	29	R		0	7 34	3		5	53 8		
850	20046 O A N	July	18	R	20	2	39 55	5	32	23	32 3	9 2	
851	R Capricorni Var 1	Aug	24	R	20	3	40 12	6	104	40	4 6	9 1	
852	S Aquilæ Var 4	Aug	23	R	20	5	21 94	5	74	16	56 6	9 1	
		Sep	13	M		5	21 81			46	56 1	9 0	
853		Sep	10	M	20	7	41 31		81	22	28 8	9 0	
854	20356 O A S	Oct	1	M	20	8	~~23 17~~		110	26	8 1	8 2	— — 21 40
855		Sep	14	M	20	10	28 82		119	9	1 6	7 0	
856	6 Capricorni α	July	18	R	20	10	30 28		102	57	49 9		
		Aug	15	M		10	30 27			57	50 2		
			21	R		10	30 31			57	50 4		
		Sep	5	M		10	30 32			57	50 8		
			9	M		10	30 12			57	49 4		
			12	M		10	30 31			57	50 0		
			13	M		10	30 28			57	50 2		
857	39045 Lalande	Aug	26	R	20	12	5 00		50	3	17 3	6 3	
		Sep	15	M		12	4 96			3	15 5	6 4	
858	α Pavonis	Aug	24	R	20	14	51 86		147	10	2 7		
		Sep	20	R		14	52 08			10	2 0		
		"	29	R		14	52 02			10	1 6		

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star		Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	*m*	*s*					
859	8441 Lacaille		Aug	17	M	20	18	13 03		121	6	59 1	8 2
			Sep	14	M		18	13 17			6	58 7	8 3
860	11 Capricorni ρ		July	18	R	20	21	5 98		108	15	37 6	
			Aug	22	R		21	5 93			15	37 2	
				24	R		21	5 88			15	38 1	
			Sep	5	M		21	5 94			15	38 9	
				10	M		21	5 89			15	38 8	
				13	M		21	5 86			15	39 0	
			Oct	1	M		21	5 86			15	38 2	
861	39525 Lalande		Sep	19	R	20	24	56 16	5	86	2	29 0	7 0
				20	R		24	55 96			2	29 3	
862			Aug	9	M	20	27	12 99	3	121	5	53 5	8 2
			Sep	14	M		27	13 15	5		5	53 9	8 0
			Oct	4	M		27	13 10	4		5	51 5	8 8
863			Aug	18	R	20	27	50 62	5	143	16	24 8	8 9
864	24 Cephei (*Hev*)	*s p*	Mar	3	M	20	28	6 61	2	1	17	7 1	8 9
		s p		19	R		28	5 52	2		17	6 5	
865	143 R P L	*s p*	Mar	16	R	20	29	42 32	5	5	18	28 0	
			Sep	13	M		29	42 13	3		18	29 9	
866			Sep	19	R	20	29	45 35		113	52	1 4	8 5
867			Oct	1	M	20	30	52 50	5	119	55	23 2	8 0
				8	M		30	52 32	5		55	23 1	8 0
868	14 Capricorni τ^2		Aug	16	R	20	31	39 85		105	25	45 7	
869	S Capricorni Var 2		Aug	19	R	20	33	7 30		109	32	22 6	8 8
				22	R		33	57 26			32	21 2	9 2
870			Oct	3	M	20	36	32 04	5	148	23	33 1	8 7
871	50 Cygni α (*Deneb*)		Aug	11	M	20	36	47 83		45	12	16 9	
			Sep	5	M		36	47 54			12	16 9	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
871	50 Cygni α (*Deneb*)	Sep	12	M	20	36	47 59		45	12	16 7	
			20	R		36	47 77			12	15 9	
			22	R		36	47 65			12	15 7	
872		Aug	26	R	20	38	8 49	4	143	3	17 3	9 0
2 Aquarii ε 873	~~53~~ Aquarii ~~Var~~ ε	Aug	15	M	20	40	18 58		99	59	29 9	
			16	R		40	18 62			59	29 0	
874		Aug	23	R	20	41	8 55	4	105	18	21 6	10 5
875	T Aquarii Var 4	Aug	19	R	20	42	45 59		95	38	58 5	9 0
			22	R		42	45 52	5		38	58 2	9 0
		Sep	19	R		42	15 60	4		38	57 9	8 2
		Oct	5	M		42	15 60			38	57 6	8 4
876	8671 Lacaille	Sep	10	M	20	42	53 11	5	150	12	58 5	7 9
		Oct	7	M		42	53 12			12	57 4	8 0
877	9633 Taylor	Aug	17	M	20	44	34 11		101	56	47 5	7 1
		Oct	6	M		44	34 26			56	46 8	7 6
878	6 Aquarii μ	Sep	12	M	20	45	19 27		99	20	29 4	
			13	M		45	18 94			20	28 9	
879		Aug	21	R	20	~~45~~	36 01		119	1	17 4	8 8 47
880	32 Vulpeculae	Aug	11	M	20	48	15 67	1	62	27	29 7	
			20	R		48	15 88			27	28 5	
			23	R		48	15 73			27	28 8	
			26	R		48	15 79			27	30 3	
		Sep	19	R		48	15 88			27	29 3	
			22	R		48	15 85			27	29 7	
			24	R		48	15 79			27	28 0	
		Oct	8	M		48	45 91			27	31 5	
			13	M		48	45 81			27	29 7	
881		Sep	14	M	20	50	40 81		148	45	51 9	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s		°				
882	8635 Lacaille	Aug	22	R	20	52	18 68		126	35	3 4	7 5	
		Sep	20	R		52	18 86			35	1 7	7 0	
		Oct	7	M		52	18 95	5		35	3 3	7 7	
883	23 Capricorni θ	Oct	8	M	20	58	18 93	5	107	46	16 1		
884	R Vulpeculæ Var 3	Aug	24	R	20	58	20 21		66	~~42~~	~~56 7~~	8 5	43 39
		Sep	10	M		58	20 29			~~42~~	~~56 5~~	8 5	43 36
885		Oct	1	M	20	58	35 34	3	118	52	36 7	9 2	
886	9772 Taylor	Sep	14	M	21	0	27 23	3	145	7	17 3	7 5	
			26	R		0	27 30			7	15 9	8 7	
887	61 Cygni (1st)	Aug	23	R	21	0	48 13		~~15~~	55	4 5		51
		„	26	R		0	48 23	5		55	4 3		
		Sep	20	R		0	48 14			55	1 0		
888	13 Aquarii ν	Sep	12	M	21	2	10 86		101	55	14 0		
			13	M		2	10 81			55	11 0		
889		Sep	19	R	21	2	54 59	5	145	6	11 8	9 5	
			26	R		2	54 52			6	11 5	9 7	
890	8712 Lacaille	Sep	27	R	21	4	11 07		146	18	32 8	8 5	
891	64 Cygni ζ	Aug	20	R	21	7	8 85		60	19	47 3		
			22	R		7	8 91			19	47 2		
			23	R		7	8 93			19	46 9		
			26	R		7	8 89			19	47 5		
		Sep	20	R		7	8 96			19	46 8		
			22	R		7	8 85			19	47 6		
			24	R		7	8 81			19	18 3		
		Oct	1	M		7	8 92			19	46 4		
			3	M		7	8 91			19	47 6		
892	1 Capricorni Var 3	Aug	16	R	21	14	25 57		105	40	11 3	9 0	
			26	R		14	25 67	5		40	11 2	9 2	
		Sep	26	R		14	25 71			40	11 9	9 0	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*		°	′	″	
893	5 Cephei α (*Alderamin*)	Aug	23	R	21	15	19 82	5	27	59	24 4	
		Sep	14	M		15	20 01	5		59	25 6	
			20	R		15	19 95			59	24 6	
894	9931 Taylor	Sep	15	M	21	18	41 93		142	53	23 2	6 2
			28	R		18	41 77	4		53	23 6	7 0
		Oct	1	M		18	41 81			53	22 6	6 8
895		Oct	7	M	21	20	5 57	5	150	47	50 8	8 2
896	22 Aquarii β	Aug	16	R	21	24	23 77		96	10	5 2	
			17	M		24	23 82			10	4 7	
			18	R		24	23 77			10	4 6	
			23	R		24	23 80			10	4 6	
			24	R		24	23 79			10	4 4	
			26	R		24	23 80			10	4 7	
		Sep	12	M		24	23 83			10	5 0	
			15	M		24	23 88			10	4 5	
			22	R		24	23 82			10	4 7	
			24	R		24	23 86			10	4 5	
		Oct	3	M		22	23 81			10	5 0	
			4	M		24	23 77			10	6 0	
			5	M		24	23 87			10	5 3	
			6	M		24	23 80			10	3 7	
897		Sep	14	M	21	25	49 17		140	23	25 6	7 9
898	8 Cephei β	Aug	13	M	21	26	53 98	5	20	2	9 4	
		Sep	20	R		26	53 90	5		2	9 0	
			29	R		26	53 74			2	8 9	
899		Sep	27	R	21	27	4 39		132	38	18 9	9 5
900		Sep	28	R	21	28	50 12	4	134	4	22 2	9 3
901		Sep	28	R	21	29	29 13	4	134	2	29 7	9 0
		Oct	8	M		29	29 33			2	30 8	9 0
902		Oct	7	M	21	29	53 40		98	25	25 9	9 0

Separate Results of Madras Meridian Circle Observations in 1864

	Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
						h	m	s		°	′	″		
	903	23 Aquarii ξ	Aug	16	R	21	30	30 59		98	27	45 1		
				17	M		30	30 49			27	44 8		
			Oct	11	M		30	30 63			27	44 4		
	904	10032 Taylor	Sep	5	M	21	30	41 50		142	58	15 0	6 4	
	905	10065 Taylor	Sep	13	M	21	34	27 98		115	7	8 3	6 4	
	906		Sep	27	R	21	34	41 63		134	0	27 1	9 2	
			Oct	1	M		34	41 44			0	27 2	9 0	
	907	8 Pegasi ε	Sep	14	M	21	37	30 19		80	44	51 2		
				15	M		37	30 34			44	48 5		
				19	R		37	30 39	5		44	50 2		
				20	R		37	30 43			44	49 7		
				26	R		37	30 38			44	50 9		
				29	R		37	30 36			44	50 2		
			Oct	3	M		37	30 25			44	51 3		
				4	M		37	30 37			44	50 0		
				5	M		37	30 26			44	50 0		
				6	M		37	30 10	5		44	48 5		
	908	10126 Taylor	Sep	28	R	21	40	59 24		137	11	24 3	7 0	
9 84	909	XXI 975 W B E	Aug	19	R	21	41	~~9 89~~		97	19	~~43 0~~	9 0	46 0
9 90				26	R		41	~~9 96~~	5		19	~~43 9~~	8 9	45 0
9 70			Sep	5	M		41	~~9 79~~			19	~~44 9~~	9 0	46 9
	910		Sep	27	R	21	42	52 87		132	31	25 7	9 0	
			Oct	7	M		42	52 96	5		31	26 2	9 1	
	911	16 Pegasi	Aug	18	R	21	46	52 51		64	42	51 0		
			Sep	12	M		46	52 54			42	50 7		
				19	R		46	52 48			42	49 9		
				20	R		46	52 55			42	50 0		
				26	R		46	52 41			42	50 3		
				29	R		46	52 52			42	50 2		
			Oct	4	M		46	52 49			42	51 8		
				5	M		46	52 45			42	51 2		
				6	M		46	52 48			42	50 8		

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
912	8958 Lacaille	Sep	28	R	21	47	12 72		135	53	18 9	7 5
		Oct	3	M		47	12 87			53	20 0	7 6
913		Sep	27	R	21	47	34 89		133	12	29 7	9 2
		Oct	7	M		47	34 78			12	30 4	9 3
914		Sep	28	R	21	52	46 60		136	38	12 8	9 7
915	κ^2 Indi	Nov	8	M	21	56	15 98		150	17	30 7	6 5
916	31 Aquarii *o*	Sep	5	M	21	56	16 50		92	48	38 9	
917	32 Aquarii	Sep	12	M	21	57	47 71		91	33	47 8	5 5
		Oct	5	M		57	47 54			33	47 0	5 6
			6	M		57	47 48			33	46 6	5 7
918		Sep	28	R	21	58	11 83		136	2	34 0	7 7
		Oct	7	M		58	11 93	3		2	33 6	8 1
919	34 Aquarii *α*	Aug	19	R	21	58	47 83		90	58	46 8	
		Sep	10	M		58	47 77			58	45 9	
			13	M		58	47 76			58	45 8	
			26	R		58	47 87			58	46 6	
			29	R		58	47 80			58	45 6	
		Oct	1	M		58	47 69			58	46 1	
			8	M		58	47 77			58	46 2	
			13	M		58	47 79			58	46 4	
			14	M		58	47 75			58	46 4	
		Nov	10	M		58	47 84			58	47 4	
920	*α* Gruis	Sep	20	R	21	59	38 79		137	37	5 [illegible]	
921		Sep	27	R	22	3	19 [illegible]5	5	101	8	51 2	9 5
922	XXII 98 W B E	Aug	19	R	22	6	21 86		90	25	48 5	8 0
			26	R		6	21 82	5		25	46 [illegible]	8 0
		Oct	4	M		6	21 88			25	47 8	8 0
923		Oct	6	M	22	9	5 55	5	98	22	7 4	
			15	M		9	5 45			22	6 8	8 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star		Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
						h	m	s		°	′	″	
924			Oct	7	M	22	9	7 81	5	146	27	33 2	9 0
925	43 Aquarii θ		Sep	13	M	22	9	39 27		98	27	33 5	
				27	R		9	39 28			27	34 3	
				28	R		9	39 24			27	33 7	
				29	R		9	39 27			27	33 0	
			Oct	5	M		9	39 35			27	33 7	
				8	M		9	39 28			27	34 1	
				11	M		9	39 25			27	34 5	
				13	M		9	39 31			27	31 2	
				14	M		9	39 30			27	31 3	
			Nov	8	M		9	39 31			27	33 6	
926	48 Aquarii γ		Oct	11	M	22	14	37 87		92	4	19 1	
			Nov	3	M		14	37 94	4		4	18 8	
				8	M		14	37 81			4	18 4	
927			Aug	19	R	22	15	20 79		82	47	25 4	8 6
			Sep	12	M		15	20 89			47	26 1	9 0
			Oct	4	M		15	20 89			47	26 5	9 1
928			Sep	28	R	22	16	51 13		135	58	25 0	9 6
			Oct	1	M		16	51 22			58	25 4	9 1
929	55 Aquarii ζ		Aug	17	M	22	21	49 53		90	12	51 9	5 7
			Oct	6	M		21	49 72			12	51 8	6 6
				13	M		21	49 51			12	52 [illegible]	6 0
930	57 Aquarii σ		Sep	13	M	22	23	26 76		101	22	23 2	
931	150 R P L	s p	Mar	1	M	22	23	38 70	3	4	34	11 8	
		s p		5	M		23	39 28	3		34	12 1	
		s p		9	M		23	38 43	2		34	11 1	
		s p		14	M		23	38 04	3		34	43 4	
		s p	Apl	15	M		23	38 57	5		34	41 7	
		s p		12	M		23	38 95	3		34	12 0	
			Sep	26	R		23	38 44	5		34	42 4	
932	27 Cephei δ Var 1		Oct	5	M	22	24	7 58		32	16	51 0	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s					
933		Sep	28	R	22	24	17 62		135	42	9 4	9 2
934		Oct	7	M	22	24	39 74		146	50	35 2	9 7
935		Oct	1	M	22	25	51 88	5	141	30	13 4	8 2
936	62 Aquarii η	Aug	17	M	22	28	21 85		90	49	3 5	
		Sep	27	R		28	21 99			49	4 3	
			28	R		28	22 04			49	3 5	
		Oct	11	M		28	22 03			49	4 2	
			14	M		28	21 85			49	4 4	
			15	M		28	21 96			49	4 8	
			21	R		28	21 95			49	3 2	
		Nov	3	M		28	22 04			49	3 3	
			10	M		28	22 01			49	5 1	
937	9188 Lacaille	Oct	24	R	22	29	53 61		130	33	42 5	7 0
		Nov	2	M		29	53 44	5		33	43 9	7 0
938	10477 Taylor	Oct	4	M	22	32	7 28	4	148	7	50 9	6 3
			13	M		32	7 21			7	50 0	6 1
939	42 Pegasi ζ	Sep	20	R	22	34	40 83		79	52	40 3	
			27	R		34	40 70			52	39 7	
			28	R		34	40 71			52	39 8	
		Oct	7	M		34	40 78			52	40 2	
			21	R		34	40 70			52	39 5	
940		Oct	24	R	22	36	30 48		130	26	57 0	8 5
			25	R		36	30 52			26	56 5	9 0
941	9226 Lacaille	Sep	22	R	22	37	39 00		145	46	40 1	7 0
		Oct	8	M		37	39 25	3		46	39 5	6 5
		Nov	3	M		37	38 98	4		46	40 3	6 7
942	XXII 844 W B E	Oct	5	M	22	40	34 18		87	48	41 2	9 0
			6	M		40	34 09			48	41 0	9 0
943		Nov	2	M	22	40	51 93		142	38	2 0	8 6
51 88			4	M		40	~~51 68~~	5		38	3 1	8 7

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°	′	″	
944		Oct	22	R	22	44	41 40		130	1	17 4	8 0
			24	R		44	41 54			1	17 0	8 0
945		Oct	7	M	22	44	43 81	5	145	33	2 5	10 2
946		Sep	12	M	22	44	50 43	6	148	34	33 1	8 2
		Oct	4	M		44	50 42	3		34	32 9	
947		Nov	8	M	22	48	3 87		152	55	12 3	9 0
948		Oct	27	M	22	49	13 19		135	27	51 4	9 0
		Nov	7	M		49	13 11			27	52 2	8 9
949	S Aquarii Var 2	Sep	22	R	22	49	49 09	5	111	4	~~1 0~~	5 5
950	2 Pis Aust *a* (*Fomalhaut*)	Oct	11	M	22	50	7 71		120	20	33 7	
			15	M		50	7 74			20	32 9	
			21	R		50	7 67			20	32 4	
			25	R		50	7 79			20	32 1	
		Nov	4	M		50	7 81			20	33 0	
		„	5	M		50	7 74			20	32 4	
			10	M		50	7 77	5		20	33 1	
951		Sep	13	M	22	50	19 32		111	0	5 9	7 1
		Oct	8	M		50	19 17			0	5 5	7 4
952		Oct	22	R	22	51	26 05		151	33	16 0	8 8
			24	R		51	26 19			33	15 0	9 0
953	9353 Lacaille	Oct	4	M	22	56	36 00		144	41	38 0	5 9
954		Oct	25	R	22	57	11 27		140	37	59 8	8 9
955	53 Peg *β* Var 1 (*Scheat*)	Oct	5	M	22	57	11 01	3	62	39	16 9	
956	54 Pegasi *α* (*Markab*)	Sep	27	R	22	57	59 20		75	31	34 5	
			28	R		57	59 16			31	34 3	
		Oct	7	M		57	59 16			31	35 5	
			31	R		57	59 21			31	33 9	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s			′		
957		Oct	24	R	22	59	20 04		150	22	5 8	9 3
		Nov	7	M		59	19 99			22	5 8	8 9
958	9372 Lacaille	Oct	15	M	23	0	22 68		150	28	13 3	8 0
			27	R		0	22 73			28	12 0	8 0
959	9377 Lacaille	Sep	14	M	23	2	12 23	5	151	18	4 9	6 5
		Oct	8	M		2	12 46	5		18	3 7	6 7
960		Sep	27	R	23	4	18 57		130	49	14 1	9 5
		Oct	22	R		4	18 69			49	16 0	9 5
961	9394 Lacaille	Oct	25	R	23	5	9 82		145	50	37 4	8 2
			26	R		5	9 78			50	37 8	8 2
		Nov	3	M		5	9 67	3		50	38 3	8 0
962	6 Piscium γ	Sep	15	M	23	10	6 86		87	27	36 7	
			16	R		10	6 85			27	36 8	
		Oct	8	M		10	6 92			27	38 3	
			31	R		10	6 92			27	38 1	
963		Oct	24	R	23	11	5 52		151	15	44 8	9 8
964		Oct	27	R	23	11	6 18	5	127	25	34 0	9 3
965		Nov	12	M	23	11	16 58		136	51	21 5	8 6
966		Sep	22	R	23	12	7 56		137	8	54 3	8 0
967		Oct	15	M	23	12	13 85	5	127	21	50 8	8 2
			27	R		12	18 29	4		21	50 7	8 3
968	96 Aquarii	Sep	9	M	23	12	20 62		95	52	2 5	5 5
969		Oct	22	R	23	15	17 22		130	46	14 7	8 7
			25	R		15	17 34			46	14 8	8 7
			26	R		15	17 13	5		46	15 6	8 7
			28	R		15	17 29	4		46	15 2	8 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star		Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
					h	m	s		°				
970			Oct 24	R	23	15	41 65	5	130	39	46 9	9 8	
971			Oct 26	R	23	19	42 21	5	151	38	3 9		
972	8 Piscium κ		Aug 19	R	23	19	57 61		89	29	20 2		
			Sep 16	R		19	57 60			29	20 8		
			Oct 13	M		19	57 58			29	20 6		
			27	R		19	57 63			29	19 3		
			, 31	R		19	57 65			29	19 5		
			Nov 2	M		19	57 69			29	20 4		
			, 4	M		19	57 63			29	20 1		
			5	M		19	57 67	5		29	19 0		
973			Sep 20	R	23	23	37 20	5	148	57	35 8	8 7	
			Nov 3	M		23	37 18			57	35 4	8 6	
974			Oct 24	R	23	25	29 85	5	129	51	59 2	10 0	
			25	R	23	25	29 90			51	59 7	9 8	
975	10804 Taylor		Oct 4	M	23	27	29 64		147	31	~~37 6~~	0 7	— 36 0
976			Sep 22	R	23	27	45 91		148	14	41 8	8 7	
			Oct 15	M		27	45 65			14	47 7	8 0	
977	158 R P L	s p	Mar 23	R	23	27	50 24	5	3	26	34 6		
		s p	31	R		27	49 68	3		26	33 3		
		s p	May 17	R		27	50 02	5		26	34 2		
			Oct 3	M		27	50 28	2		26	35 0		
			Nov 5	M		27	49 26	3		26	35 5		
978			Oct 26	R	23	29	49 60	6	148	55	19 7	8 0	
			Nov 7	M		29	~~49 28~~	5		55	16 0	8 1	49 47 —
979			Oct 26	R	23	30	24 69		148	56	42 9	8 3	
980	17 Piscium ι		Aug 19	R	23	32	57 35		85	6	39 1		
			Oct 6	M		32	57 33			6	38 1		
			7	M		32	57 31			6	38 3		
			13	M		32	57 35			6	39 1		

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	m	s		°			
980	17 Piscium ι	Oct	27	R	23	32	57 30		86	6	39 3	
		Nov	2	M		32	57 36			6	39 5	
			8	M		32	57 36			6	38 9	
981	35 Cephei γ	Sep	29	R	23	33	47 95		13	7	36 8	
		Oct	24	R		33	47 74			7	38 9	
			31	R		33	47 79			7	36 9	
982		Oct	25	R	23	34	20 29		147	27	26 3	9 2
983		Nov	10	M	23	35	11 20		148	42	58 3	8 0
984		Sep	20	R	23	36	46 94	5	106	2	18 9	9 5
		Oct	15	M		36	46 55			2	18 6	8 9
985	9583 Lacaille	Oct	4	M	23	38	50 58		128	43	54 3	8 4
			25	R		38	50 59			43	52 9	8 9
986		Oct	25	R	23	41	4 67		128	46	38 4	9 7
987	δ Sculptoris	Oct	7	M	23	41	50 33		118	52	57 5	
			8	M		41	50 17			52	57 4	
			22	R		41	50 04			52	56 8	
			26	R		41	50 27			52	56 6	
			27	R		41	50 26			52	57 1	
			28	R		41	50 28			52	55 8	
		Nov	2	M		41	50 21			52	57 5	
			3	M		41	50 15			52	56 4	
			4	M		41	50 19			52	57 3	
			5	M		41	50 24			52	56 3	
			8	M		41	50 20			52	56 9	
988		Sep	15	M	23	41	58 37		142	4	25 9	8 5
989		Nov	7	M	23	42	41 88		150	54	3 2	9 4
990		Oct	22	R	23	47	43 56		128	50	58 3	9 0
		,	24	R		47	43 76			50	58 5	9 8

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					h	*m*	*s*					
991	9641 Lacaille	Oct	28	R	23	48	2 04	5	128	7	14 7	7 8
992		Nov	12	M	23	49	57 25		148	53	24 9	8 5
993	R Cassiopeæ Var 3	Oct	27	R	23	51	30 50		39	22	8 6	9 5
994		Nov	8	M	23	51	45 33	5	152	20	38 6	9 0
995	28 Piscium ω	Sep	15	M	23	52	19 59		83	53	22 0	
		,	16	R		52	19 69	4		53	23 0	
		Oct	7	M		52	19 65			53	24 1	
		„	20	R		52	19 65			43	24 1	
			25	R		52	19 75			53	23 4	
		„	26	R		52	19 74			53	23 7	
		„	28	R		52	19 70			53	23 0	
		Nov	2	M		52	19 70			53	24 7	
		„	3	M		52	19 66			53	22 2	
		„	4	M		52	19 63			53	24 2	
		„	10	M		52	19 69			26	24 1	
996	9686 Lacaille	Sep	20	R	23	53	32 51	5	143	51	14 9	7 0
		Oct	4	M		53	32 44	5		51	16 6	7 1
		Nov	7	M		53	32 38			51	14 5	6 7
997		Oct	22	R	23	55	58 44	5	130	17	1 1	9 0
		,	24	R		55	58 48			17	1 5	9 3
998		Nov	11	M	23	56	7 64	5	124	7	46 0	8 0
999	10994 Taylor	Sep	29	R	23	57	47 27		147	36	0 5	7 7
1000	9721 Lacaille	Nov	12	M	23	59	15 72	3	139	~~50~~	~~3 3~~	6 9

—49 54 2

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1864

REDUCED TO JANUARY 1, OF THAT YEAR

Mean Positions of Stars for 1864 *January* 1st,

	Number	Star	Magnitude	Estimates	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
	1	11010 Taylor	7 9	1	0	0	28 80	147	35	39 1	1	0 86
	2		9 1	1	0	0	42 06	151	23	53 2	1	0 85
	3	21 Androm α (*Alpherat*)	2 0		0	1	21 68	61	39	40 0	9	0 84
	4	9739 Lacaille	7 6	2	0	2	4 03	130	29	36 3	2	0 75
	5	7 Taylor	7 1	1	0	2	57 47	93	10	4 6	1	0 71
	6	3 Lacaille	6 6	1	0	6	6 66	148	40	15 3	1	0 84
	7	88 Pegasi γ (*Algenib*)	2 7		0	6	14 08	75	34	23 5	9	0 82
38 47	8		9 5	2	0	6	~~39 45~~	131	7	1 2	2	0 75
	9		8 7	1	0	9	22 56	149	31	50 5	1	0 85
	10		9 0	2	0	9	33 24	153	55	7 1	2	0 86
	11	41 Lacaille	8 1	2	0	12	33 58	130	52	3 0	2	0 78
	12		8 7	3	0	12	47 29	150	26	38 8	3	0 81
	13	41 Piscium *d*	5 6	2	0	13	36 03	82	33	55 0	2	0 71
	14		9 0	1	0	18	31 22	152	57	38 5	1	0 85
	15	81 Lacaille	7 2	1	0	18	38 22	130	0	39 9	1	0 74
	16	12 Ceti	6 4		0	23	5 86	94	42	34 7	9	0 87
	17	T Piscium Var 3	10 5	1	0	24	57 60	76	9	0 4	1	0 82
	18		8 2	3	0	27	7 86	76	14	8 1	3	0 72
	19	132 Lacaille	9 0	1	0	27	18 33	151	53	55 9	1	0 85
	20	970 Lalande	7 7	1	0	31	4 54	80	55	9 4	1	0 93
	21	1010 Lalande	9 3	2	0	32	15 51	82	32	27 4	2	0 82
	22	18 Cassiopeæ α Var 2	2 5		0	32	48 14	34	12	34 7	1	0 92
	23	16 Ceti β	2 0		0	36	45 65	108	44	1 4	11	0 89
	24	0 628 W B E	9 3		0	36	54 12	93	49	29 9	1	0 85
	25		9 0	2	0	39	54 00	150	44	54 7	2	0 86
	26	58 Piscium	5 0	1	0	39	55 34	78	46	8 8	1	0 78
	27	63 Piscium δ	5 0		0	41	37 67	83	9	21 5	3	0 73
	28	253 Lacaille	6 0	1	0	47	57 75	153	36	39 3	1	0 85
	29		9 6	1	0	43	55 25	153	49	48 6	1	0 94
	30	2 Ursæ Minoris	4 4		0	50	44 32	4	28	29 4	2	0 60
	31	0 897 W B E	9 2	3	0	52	12 34	92	49	55 1	3	0 90
	32	271 Lacaille	7 5	1	0	52	42 54	151	25	58 2	1	0 86
59 82	33	14 R P L	6 2		0	53	9 82 58 25	3	34	53 8	1	0 39
	34	70 Piscium	6 9	1	0	55	2 48	82	47	38 2	1	0 92
	35	71 Piscium ε	4 5		0	55	53 21	82	50	35 3	8	0 54

17 —T Piscium Var 3 —Period irregular —Range 9 5 to 11th magnitude
20 —21 —Comparison stars for Ariadne in 1861
22 —α Cassiopeæ Var 2 —Irregular —Range 2 2 to 2 8 magnitude
24 —Comparison star for Europa in 1861
30 —12 R P L
31 —Comparison star for Europa in 1862
33 —195 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
1	11010 Taylor	+ 3 0677	− 0 0452		− 20 055	+ 0 010		8377
2		+ 3 0646	− 0 0526		− 20 055	+ 0 010		
3	21 Andromedæ α	+ 3 0763	+ 0 0182	+ 0 009	− 20 055	+ 0 013	+ 0 15	4
4	9739 Lacaille	+ 3 0618	− 0 0233		− 20 054	+ 0 013		
5	7 Taylor	+ 3 0711	+ 0 0004		− 20 053	+ 0 015		12
6	3 Lacaille	+ 3 0135	− 0 0449		− 20 048	+ 0 021		
7	88 Pegasi γ	+ 3 0813	+ 0 0100	0 000	− 20 048	+ 0 022	+ 0 02	26
8		+ 3 0382	− 0 0232		− 20 046	+ 0 022		
9		+ 2 9792	− 0 0452		− 20 038	+ 0 027		
10		+ 2 9583	− 0 0540		− 20 037	+ 0 027		
11	41 Lacaille	+ 3 0087	− 0 0221		− 20 025	+ 0 033		
12		+ 2 9406	− 0 0453		− 20 024	+ 0 033		
13	41 Piscium d	+ 3 0824	+ 0 0066	− 0 002	− 20 019	+ 0 036	− 0 01	66
14		+ 2 8606	− 0 0472		− 19 989	+ 0 043		
15	81 Lacaille	+ 2 9809	− 0 0205		− 19 989	+ 0 044		
16	12 Ceti	+ 3 0609	+ 0 0008	− 0 002	− 19 954	+ 0 055	+ 0 01	112
17	T Piscium Var 3	+ 3 1079	+ 0 0108		− 19 936	+ 0 058		
18		+ 3 1108	+ 0 0109		− 19 915	+ 0 063		
19	132 Lacaille	+ 2 7745	− 0 0413		− 19 913	+ 0 057		
20	970 Lalande	+ 3 1010	+ 0 0085		− 19 871	+ 0 070		
21	1010 Lalande	+ 3 0967	+ 0 0076		− 19 856	+ 0 072		
22	18 Cassiopeæ α Var 2	+ 3 3525	+ 0 0553	+ 0 006	− 19 850	+ 0 080	+ 0 04	169
23	16 Ceti β	+ 2 9996	− 0 0055	+ 0 013	− 19 798	+ 0 080	− 0 02	196
24	0 628 W B E	+ 3 0078	+ 0 0020		− 19 796	+ 0 080		
25		+ 2 6586	− 0 0340		− 19 752	+ 0 075		
26	58 Piscium	+ 3 1181	+ 0 0101	0 000	− 19 752	+ 0 087	0 00	213
27	63 Piscium δ	+ 3 1010	+ 0 0077	+ 0 003	− 19 725	+ 0 090	+ 0 05	222
28	253 Lacaille	+ 2 5123	− 0 0327		− 19 617	+ 0 084		251
29		+ 2 4957	− 0 0323		− 19 600	+ 0 085		
30	2 Ursæ Minoris	+ 6 8236	+ 1 2850	+ 0 065	− 19 565	+ 0 227	+ 0 01	262
31	0 897 W B E	+ 3 0572	+ 0 0034		− 19 537	+ 0 109		
32	271 Lacaille	+ 2 5123	− 0 0289		− 19 522	+ 0 092		276
33	14 B P L	+ 8 0556	+ 1 9725	− 0 171	− 19 502	+ 0 282	− 0 02	273
34	70 Piscium	+ 3 1123	+ 0 0086	− 0 003	− 19 479	+ 0 116	+ 0 17	281
35	71 Piscium ε	+ 3 1125	+ 0 0087	− 0 002	− 19 462	+ 0 119	0 00	288

16—33 —Proper motions adopted from *Greenwich Catalogue*
34 —Proper motion in Polar Distance taken from "*Greenwich Catalogue*"

Mean Positions of Stars for 1864 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance			Observations	Fraction of Year
36	29 Ceti	6 7	1	1	0	58 99	88	43	8 5	1	0 85
37	33 Ceti	6 3		1	3	33 56	88	16	46 1	3	0 00
38	86 Piscium 3 (1st)	6 0		1	6	37 58	83	8	38 8	2	0 77
39	1 Urs Min α (*Polaris*)	2 0		1	9	18 30	1	24	56 6	8	0 45
40		8 1	2	1	17	0 19	96	31	26 3	2	0 87
41	45 Ceti θ^1	4 0		1	17	13 51	98	53	11 6	6	0 45
42		7 6	1	1	18	53 11	151	20	23 0	1	0 93
43		8 2	1	1	23	28 19	87	43	58 8	1	0 84
44	99 Piscium η	4 5		1	24	12 55	75	21	24 9	10	0 62
45		8 6	1	1	25	44 66	150	21	41 4	1	0 86
46	514 Taylor	6 1	2	1	28	33 59	73	15	51 3	2	0 92
47		9 0	1	1	29	1 31	150	42	35 1	1	0 93
48		8 0	1	1	31	23 00	130	52	17 8	1	0 89
49	α Eridani (*Achernar*)	1 0		1	32	38 92	147	55	45 6	3	0 92
50	106 Piscium ν	4 7		1	34	21 29	85	12	7 6	6	0 88
51	503 Lacaille	7 7	1	1	35	42 98	151	41	18 8	1	0 85
52	110 Piscium ο	4 7		1	38	12 78	81	31	42 7	4	0 86
53		9 1	1	1	38	33 55	152	2	52 8	1	0 94
54	516 Lacaille	7 0	2	1	39	58 39	151	42	9 2	2	0 88
55		9 4	1	1	46	9 24	148	57	57 1	1	0 85
56	~~V Piscium Var. 5~~	10 0	1	1	47	7 59	81	53	9 4	1	0 91
57	6 Arietis β	2 7		1	47	7 90	69	51	31 7	7	0 88
58		9 3	2	1	48	32 81	150	5	13 5	2	0 89
59	582 Lacaille	8 1	1	1	50	54 77	145	44	21 5	1	0 94
60	593 Lacaille	8 0		1	52	2 53	149	8	13 6	1	0 01
61		9 0	2	1	54	52 52	130	55	41 8	2	0 85
62	673 Taylor	6 0	1	1	56	15 31	72	24	8 3	1	0 86
63		9 3	2	1	59	23 52	150	2	31 5	2	0 89
64	13 Arietis α	2 0		1	59	30 67	67	10	58 2	7	0 89
65	697 Taylor	6 7	1	2	1	45 88	145	43	57 4	1	0 01
66		9 3	2	2	1	55 01	130	2	28 3	2	0 81
67	677 Lacaille	8 0	1	2	6	55 77	149	47	35 4	1	0 81
68		9 7	1	2	6	58 76	148	39	29 4	1	0 82
69	754 Taylor	8 9	2	2	9	11 75	147	58	53 7	2	0 46
70	67 Ceti	6 0		2	10	12 05	97	3	2 8	7	0 91

37 —Used with Mars in opposition in 1862 for investigation of the constant of Solar Parallax

~~56. V Piscium Var. 5. Supposed to vary between 8th and 9th magnitude.~~

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
36	29 Ceti	+ 3 0800	+ 0 0058	+ 0 010	− 19 349	+ 0 126	+ 0 46	324
37	33 Ceti	+ 3 0830	+ 0 0062	− 0 003	− 19 288	+ 0 131	+ 0 02	344
38	86 Piscium 3 (1st)	+ 3 1181	+ 0 0090	+ 0 008	− 19 213	+ 0 139	+ 0 07	368
39	1 Urs Min α (*Polaris*)	+ 18 8156	+12 6804	+ 0 065	− 19 145	+ 0 825	0 00	360
40		+ 3 0217	+ 0 0028		− 18 933	+ 0 153		
41	45 Ceti θ^1	+ 3 0029	+ 0 0018	− 0 007	− 18 928	+ 0 154	+ 0 22	420
42		+ 2 2467	− 0 0173		− 18 879	+ 0 119		
43		+ 3 0909	+ 0 0073		− 18 740	+ 0 169		
44	99 Piscium η	+ 3 1976	+ 0 0142	0 000	− 18 717	+ 0 176	0 00	453
45		+ 2 2133	− 0 0148		− 18 668	+ 0 126		
46	514 Taylor	+ 3 2236	+ 0 0154		− 18 576	+ 0 185		477
47		+ 2 1694	− 0 0135		− 18 561	+ 0 128		
48		+ 2 6229	− 0 0101		− 18 482	+ 0 157		
49	α Eridani (*Achernar*)	+ 2 2328	− 0 0128	+ 0 008	− 18 439	+ 0 137	+ 0 07	507
50	106 Piscium ν	+ 3 1169	+ 0 0091	− 0 004	− 18 380	+ 0 191	− 0 04	518
51	503 Lacaille	+ 2 0654	− 0 0104		− 18 332	+ 0 130		
52	110 Piscium ο	+ 3 1548	+ 0 0111	+ 0 006	− 18 241	+ 0 199	− 0 01	537
53		+ 2 0216	− 0 0089		− 18 229	+ 0 131		
54	516 Lacaille	+ 2 0228	− 0 0085		− 18 177	+ 0 133		543
55		+ 2 0792	− 0 0082		− 17 942	+ 0 144		
56	~~Y Piscium Var. 5~~	+ 3 1580	+ 0 0111		− 17 904	+ 0 216		
57	6 Arietis β	+ 3 2930	+ 0 0183	+ 0 002	− 17 904	+ 0 226	+ 0 11	577
58		+ 2 0121	− 0 0067		− 17 847	+ 0 142		
59	582 Lacaille	+ 2 1588	− 0 0081		− 17 752	+ 0 155		
60	593 Lacaille	+ 2 0214	− 0 0061		− 17 705	+ 0 147		
61		+ 2 5151	− 0 0069		− 17 588	+ 0 184		
62	673 Taylor	+ 3 2781	+ 0 0167		− 17 530	+ 0 269		632
63		+ 1 9176	− 0 0031		− 17 395	+ 0 146		
64	13 Arietis α	+ 3 3523	+ 0 0203	+ 0 012	− 17 390	+ 0 252	+ 0 15	648
65	697 Taylor	+ 2 0777	− 0 0053		− 17 290	+ 0 161		659
66		+ 2 5022	− 0 0058		− 17 283	+ 0 192		
67	677 Lacaille	+ 1 8641	− 0 0011		− 17 057	+ 0 150		
68		+ 1 9169	− 0 0021		− 17 055	+ 0 154		
69	754 Taylor	+ 1 9296	− 0 0021		− 16 952	+ 0 157		
70	67 Ceti	+ 2 9831	+ 0 0049	+ 0 003	− 16 905	+ 0 242	+ 0 14	704

36 —38 — Proper motions adopted from " *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January 1st*

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
71	68 Ceti *o* Var 1 (*Mira*)	Var	3	2	12	28 68	93	35	52 2	3	0 54
72		8 0	1	2	16	23 72	151	18	24 7	1	0 93
73	818 Taylor	7 5	1	2	19	8 13	147	25	59 7	1	0 01
74		8 5		2	20	10 68	146	32	43 2	2	0 46
75	73 Ceti ξ^2	4 5		2	20	55 83	82	9	5 3	9	0 72
76	λ Horologii	6 0	1	2	21	6 12	150	55	20 6	1	0 93
77		8 2	1	2	24	27 94	147	2	45 3	1	0 95
78	782 Lacaille	7 4	2	2	26	13 19	148	24	55 0	2	0 44
79		9 5	1	2	29	10 94	147	37	29 6	1	0 91
80	31 Arietis	5 5	1	2	29	12 94	78	8	40 0	2	0 94
81		9 8	2	2	30	45 40	147	34	54 5	2	0 45
82		9 6	1	2	31	15 88	151	39	24 0	1	0 93
83	II 556 W B N	8 3	2	2	33	10 21	74	54	0 0	2	0 90
84		8 7	1	2	33	59 16	74	56	35 3	1	0 86
85	849 Lacaille (1st)	7 9	1	2	36	0 55	150	9	10 0	1	0 01
86	86 Ceti γ	3 7		2	36	15 35	87	20	22 6	8	0 69
87	38 Arietis	5 1	2	2	37	33 12	78	7	44 0	3	0 89
88	II 676 W B N	8 1	3	2	40	8 14	75	20	24 5	3	0 90
89	42 Arietis π	5 4	2	2	41	42 58	73	6	15 7	2	0 40
90		8 8	2	2	43	17 90	148	0	37 2	2	0 02
91	II 733 W B E	9 5	2	2	43	19 15	76	2	13 0	2	0 90
92		9 2	1	2	45	15 73	76	27	53 8	1	0 03
93	969 Taylor	7 5	2	2	45	37 49	74	4	28 3	2	0 89
94	87 Rumker	5 9	1	2	46	0 94	153	22	19 5	1	0 93
95	5380 Lalande	8 1	2	2	47	42 02	74	14	41 4	2	0 90
96	941 Lacaille	6 5	2	2	50	26 45	146	26	5 9	2	0 02
97		8 6	1	2	52	21 64	150	17	8 5	1	0 01
98		8 4	1	2	53	15 55	146	44	28 5	1	0 95
99	969 Lacaille	7 9	1	2	54	53 50	144	13	57 3	1	0 04
100	92 Ceti α (*Menkar*)	2 3		2	55	10 32	86	26	46 6	7	0 80
101	25 Persei ρ Var 2	4 0		2	56	28 54	51	41	23 1	1	0 01
102	1037 Taylor	9 2	2	2	56	54 10	150	21	34 7	2	0 03
103	26 Persei β Var 1 (*Algol*)	2 7		2	59	19 81	49	34	17 4	2	0 88
104	1047 Taylor	7 3	2	2	59	51 50	151	19	53 2	2	0 51
105	1052 Taylor	6 0	1	3	0	25 00	150	16	1 7	1	0 04

70 — *o* Ceti Var 1 —(*Mira*) —Period 331 days Range, 2nd to 10th magnitude
83—88—91—93—95 —Comparison stars for Victoria in 1861
101 —ρ Persei Var 2 —Changes irregularly from 3 5 to 4 3 magnitude
103 —β Persei Var 1 (*Algol*)—Period 2 867 days Range 2 5 to 4th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension Annual Precession	Secular Variation	Proper Motion	In Polar Distance Annual Precession	Secular Variation	Proper Motion	Number in B A C
		s	s	s				
71	68 Ceti o Var 1	+ 3 0261	+ 0 0064	− 0 001	− 16 796	+ 0 248	+ 0 23	720
72		+ 1 7026	+ 0 0036		− 16 607	+ 0 146		
73	818 Taylor	+ 1 8778	− 0 0001		− 16 472	+ 0 163		753
74		+ 1 9102	− 0 0005		− 16 420	+ 0 167		
75	73 Ceti ξ²	+ 3 1783	+ 0 0117	+ 0 001	− 16 382	+ 0 276	+ 0 02	760
76	λ Horologii	+ 1 6835	+ 0 0044		− 16 372	+ 0 149		762
77		+ 1 8565	+ 0 0008		− 16 201	+ 0 167		
78	782 Lacaille	+ 1 7769	+ 0 0026		− 16 110	+ 0 161		
79		+ 1 7943	+ 0 0024		− 15 954	+ 0 166		
80	31 Arietis	+ 3 2422	+ 0 0137	+ 0 017	− 15 952	+ 0 294	+ 0 09	798
81		+ 1 7848	+ 0 0027		− 15 870	+ 0 166		
82		+ 1 5524	+ 0 0084		− 15 843	+ 0 146		
83	II 556 W B N	+ 3 2957	+ 0 0154		− 15 741	+ 0 305		
84		+ 3 2960	+ 0 0154		− 15 696	+ 0 306		
85	840 Lacaille (1st)	+ 1 6056	+ 0 0071		− 15 585	+ 0 154		
86	86 Ceti γ	+ 3 1112	+ 0 0094	− 0 011	− 15 572	+ 0 294	+ 0 19	837
87	38 Arietis	+ 3 2505	+ 0 0137	+ 0 008	− 15 500	+ 0 308	+ 0 10	844
88	II 676 W B N	+ 3 2971	+ 0 0150		− 15 355	+ 0 315		
89	42 Arietis π	+ 3 3355	+ 0 0163	− 0 002	− 15 266	+ 0 322	− 0 02	870
90		+ 1 6726	+ 0 0057		− 15 176	+ 0 167		
91	II 733 W B E	+ 3 2895	+ 0 0146		− 15 174	+ 0 320		
92		+ 3 2846	+ 0 0144		− 15 068	+ 0 322		
93	969 Taylor	+ 3 3244	+ 0 0157		− 15 042	+ 0 326		892
94	87 Rumker	+ 1 3050	+ 0 0158		− 15 019	+ 0 132		895
95	5380 Lalande	+ 3 3241	+ 0 0156		− 14 921	+ 0 330		
96	941 Lacaille	+ 1 7078	+ 0 0053		− 14 760	+ 0 175		
97		+ 1 4716	+ 0 0107		− 14 646	+ 0 153		
98		+ 1 6736	+ 0 0060		− 14 592	+ 0 174		
99	969 Lacaille	+ 1 7893	+ 0 0040		− 14 494	+ 0 186		
100	92 Ceti α	+ 3 1294	+ 0 0098	− 0 002	− 14 476	+ 0 323	+ 0 11	949
101	25 Persei ρ Var 2	+ 3 8074	+ 0 0332	+ 0 010	− 14 398	+ 0 393	+ 0 11	953
102	1037 Taylor	+ 1 4332	+ 0 0116		− 14 372	+ 0 152		
103	Persei β Var 1	+ 3 8749	+ 0 0356	− 0 002	− 14 222	+ 0 405	− 0 01	963
104	1047 Taylor	+ 1 3441	+ 0 0139		− 14 190	+ 0 145		968
105	1052 Taylor	+ 1 4138	+ 0 0120		− 14 155	+ 0 152		972

71 −80 —101 —Proper Motions from Mr Stone s list *Vol 33 Memoirs R A S'*
75 —Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January* 1*st*,

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	m	s					
	106	33 R P L	5 8		3	0	42 11	5	34	52 8	1	0 42
	107	57 Arietis δ	4 2		3	3	51 34	70	47	26 0	9	0 92
47 78	108	1007 Lacaille	7 0	1	3	4	~~48 78~~	152	14	28 7	1	0 05
	109	1092 Taylor	6 9	3	3	7	15 56	148	19	2° 4	3	0 33
	110		9 0	1	3	7	16 15	145	40	32 5	1	0 95
	111		8 6	1	3	12	41 14	130	50	15 5	1	0 03
	112	33 Persei α	2 3		3	14	37 57	40	37	34 5	3	0 92
	113		9 0	1	3	14	51 02	150	6	18 7	1	0 04
	114	3 Reticuli	6 1	2	3	15	15 71	153	1	38 0	2	0 06
	115		7 8	1	3	20	18 17	149	18	56 3	1	0 01
	116		7 4	2	3	20	34 35	149	28	29 8	2	0 04
	117		7 5	1	3	22	0 03	88	12	26 3	1	0 02
	118	34 R P L	5 9		3	22	16 24	3	47	27 2	3	0 62
	119	1143 Lacaille	5 7	1	3	27	0 67	153	25	6 5	2	0 05
[27 56]	120	1150 Lacaille	7 7	1	3	28	26 56	152	28	17 6	1	0 95
	121	1159 Lacaille	6 9	2	3	30	16 33	151	28	32 9	2	0 06
	122	1192 Lacaille	8 5	1	3	34	58 48	147	43	46 9	1	0 03
	123	1193 Lacaille	8 1	1	3	35	15 49	146	35	14 0	1	0 01
	124	1200 Lacaille	6 9	1	3	36	24 39	146	40	30 9	2	0 05
	125	17 Tauri (*Electra*)	4 0		3	36	48 28	66	18	59 2	1	0 01
	126	25 Tauri η (*Alcyone*)	3 5		3	39	24 23	66	19	7 3	11	0 76
	127	1318 Taylor	5 6	2	3	42	30 15	155	14	8 4	2	0 06
	128		9 0	1	3	45	11 82	76	27	48 7	1	0 90
	129		8 8	2	3	46	32 38	146	33	39 1	2	0 02
	130		8 3	2	3	48	3 74	150	50	16 6	2	0 02
	131	34 Eridani γ^1	3 3		3	51	41 12	103	53	52 6	8	0 71
	132	35 Tauri λ Var 1	6 3	1	3	53	8 92	77	53	48 7	1	0 08
	133		7 9	1	3	53	40 29	143	8	23 6	1	0 01
	134	1327 Lacaille	5 9	3	3	54	18 85	153	51	28 4	3	0 35
	135	36 Tauri	6 5	7	3	56	13 80	66	16	18 9	10	0 94
	136	37 Tauri A^1	4 7		3	56	39 51	68	17	36 3	1	0 79
	137	1347 Lacaille	7 0	2	3	58	6 87	149	2	34 8	2	0 03
	138	1359 Lacaille	9 2	2	4	0	0 71	147	50	4 2	2	0 04
	139	1375 Lacaille	9 0	2	4	2	54 37	148	50	45 8	2	0 06
	140		9 8	1	4	3	23 80	68	30	18 3	1	0 08

106 —595 Groombridge
118 ~~115~~ —642 Groombridge
132 —λ Tauri Var 1 —Period 3 95 days—Range 3 5 to 4 3 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
106	33 R P L	+ 12 7777	+ 1 5817		− 14 138	+ 1 328	+ 0 12	960
107	57 Arietis δ	+ 3 4069	+ 0 0171	+ 0 010	− 13 940	+ 0 364	0 00	986
108	1007 Lacaille	+ 1 2385	+ 0 0169		− 13 880	+ 0 136		
109	1092 Taylor	+ 1 4920	+ 0 0100		− 13 724	+ 0 165		1002
110		+ 1 6442	+ 0 0069		− 13 724	+ 0 181		
111		+ 2 2110	+ 0 0012		− 13 375	+ 0 246		
112	33 Persei α	+ 4 2420	+ 0 0483	+ 0 002	− 13 248	+ 0 472	+ 0 05	1043
113		+ 1 3244	+ 0 0138		− 13 233	+ 0 151		
114	5² Reticuli	+ 1 0943	+ 0 0208	+ 0 190	− 13 206	+ 0 126	− 0 65	1051
115		+ 1 3442	+ 0 0131		− 12 870	+ 0 156		
116		+ 1 3314	+ 0 0133		− 12 853	+ 0 155		
117		+ 3 1013	+ 0 0089		− 12 757	+ 0 355		
118	34 R P L	+ 18 6475	+ 3 1896	+ 0 136	− 12 739	+ 2 105	+ 0 06	1061
119	1143 Lacaille	+ 0 9736	+ 0 0227		− 12 415	+ 0 117		1103
120	1150 Lacaille	+ 1 0476	+ 0 0203		− 12 317	+ 0 126		
121	1159 Lacaille	+ 1 1186	+ 0 0180		− 12 190	+ 0 135		
122	1192 Lacaille	+ 1 3647	+ 0 0120		− 11 861	+ 0 165		
123	1193 Lacaille	+ 1 4364	+ 0 0105		− 11 841	+ 0 174		
124	1200 Lacaille	+ 1 4248	+ 0 0107		− 11 759	+ 0 173		
125	17 Tauri (*Electra*)	+ 3 5478	+ 0 0180	0 000	− 11 781	+ 0 424	+ 0 04	1147
126	25 Tauri η (*Alcyone*)	+ 3 5515	+ 0 0177	− 0 001	− 11 546	+ 0 430	+ 0 06	1166
127	1318 Taylor	+ 0 6800	+ 0 0294	+ 0 050	− 11 323	+ 0 087	− 0 06	1197
128		+ 3 3399	+ 0 0124		− 11 128	+ 0 410		
129		+ 1 3811	+ 0 0111		− 11 029	+ 0 173		
130		+ 1 0623	+ 0 0177		− 10 918	+ 0 135		
131	34 Eridani γ^1	+ 2 7917	+ 0 0047	+ 0 002	− 10 652	+ 0 351	+ 0 12	1234
132	35 Tauri λ Var 1	+ 3 3160	+ 0 0115	− 0 002	− 10 542	+ 0 416	+ 0 02	1241
133		+ 1 5529	+ 0 0082		− 10 503	+ 0 198		
134	1327 Lacaille	+ 0 7474	+ 0 0250		− 10 455	+ 0 097		1248
135	36 Tauri	+ 3 5761	+ 0 0164	+ 0 002	− 10 312	+ 0 451	− 0 01	1253
136	37 Tauri A^1	+ 3 5292	+ 0 0153	+ 0 004	− 10 280	+ 0 446	+ 0 09	1257
137	1347 Lacaille	+ 1 1510	+ 0 0148		− 10 170	+ 0 149		
138	1359 Lacaille	+ 1 2310	+ 0 0131		− 10 027	+ 0 160		
139	1375 Lacaille	+ 1 1429	+ 0 0144		− 9 806	+ 0 149		
140		+ 3 5319	+ 0 0147		− 9 765	+ 0 454		

106 —The Proper Motion in Polar Distance taken from *Greenwich Catalogue*
114 —127 —Proper Motions adopted from *Stone's Catalogue*
118 —132 —135 —Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
141	37 Eridani	5 6	1	4	3	44 58	97	16	55 3	1	0 01
142		8 8	2	4	5	0 17	150	5	32 6	2	0 02
143	38 Eridani o^1	4 3		4	5	13 65	97	11	41 4	3	0 34
144		8 5	2	4	9	18 70	149	31	9 8	2	0 05
145		8 0	1	4	9	46 60	129	18	57 0	1	0 89
146	1489 Taylor	7 1	2	4	11	2 66	148	22	0 2	2	0 02
147	1425 Lacaille	6 2	2	4	13	1 81	152	32	3 0	2	0 06
148	U Tauri Var 7	9 7	1	4	13	53 65	70	30	42 4	1	0 90
149	T Tauri Var 6	10 4	2	4	14	3 84	70	47	26 0	2	0 08
150	ϵ Reticuli	5 0	2	4	14	8 75	140	37	48 2	2	0 03
151	1513 Taylor	6 7	2	4	14	18 26	151	17	2 7	2	0 49
152	61 Tauri δ	4 0		4	15	5 61	72	46	48 3	3	0 30
153	62 Tauri	7 0		4	15	47 90	66	1	11 1	2	0 97
154		8 8	1	4	16	45 55	149	4	26 5	1	0 01
155	69 Tauri υ^1	4 5		4	18	10 88	67	29	55 5	7	0 94
156	74 Tauri ϵ	3 7		4	20	40 69	71	7	29 4	13	0 38
157	R Tauri Var 2	9 9	2	4	20	51 07	80	8	37 7	2	0 08
158		10 2	2	4	22	21 67	80	21	14 7	2	0 49
159	1582 Taylor	6 0	1	4	23	12 66	151	32	49 3	1	0 06
160	1519 Lacaille	8 2	2	4	25	35 42	153	6	6 6	2	0 07
161	1520 Lacaille	8 4	2	4	26	41 07	147	29	2 4	2	0 47
162	87 Tauri α (*Aldebaran*)	1 0		4	28	7 16	73	46	3 6	9	0 34
163	R Reticuli Var 1	8 5	1	4	32	8 35	153	18	40 4	1	0 11
164	IV 696 W B N	9 2	4	4	32	36 03	66	27	30 2	4	0 96
165		8 5	2	4	33	32 41	144	53	50 2	2	0 04
166	IV 726 W B N	8 1	3	4	33	50 93	66	15	17 4	6	0 93
167	94 Tauri τ	4 7		4	34	5 05	67	18	27 6	7	0 93
168	95 Tauri	6 5	1	4	35	0 01	66	10	22 0	1	0 89
169	1567 Lacaille	5 8	3	4	35	11 17	152	20	47 0	3	0 07
170	1566 Lacaille	7 8	1	4	35	46 00	148	28	26 3	1	0 01
171	1663 Taylor	7 9	1	4	36	50 08	138	48	8 3	1	0 04
172	1582 Lacaille	8 5	2	4	37	18 61	152	38	43 4	2	0 06
173		9 3	2	4	40	19 23	151	20	52 6	2	0 06
174	κ Doradûs	6 3	3	4	42	18 43	149	59	0 6	3	0 05
175	1629 Lacaille	6 5	2	4	43	42 96	153	28	32 7	2	0 07

148 —U Tauri Var 7 —Period unknown —Range 9th to 10 5 magnitude
149 —T Tauri Var 6 —Period unknown —Range 9th to 13th magnitude
157 —R Tauri Var 2 —Period 325 days —Range 8th magnitude to invisibility
163 —R Reticuli Var 1 —Period 281 days —Range 7th magnitude to invisibility
164—166 —Comparison stars used with Mars in 1864 for investigation of the constant of Solar Parallax

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
141	37 Eridani	+ 2.9228	+ 0.0058	− 0.002	− 9.743	+ 0.377	+ 0.04	1284
142		+ 1.0343	+ 0.0165		− 9.640	+ 0.136		
143	38 Eridani o^1	+ 2.9240	+ 0.0058	− 0.002	− 9.629	+ 0.379	− 0.07	1290
144		+ 1.0603	+ 0.0155		− 9.313	+ 0.141		
145		+ 2.1015	+ 0.0035		− 9.278	+ 0.276		
146	1489 Taylor	+ 1.1423	+ 0.0137		− 9.180	+ 0.152		1325
147	1425 Lacaille	+ 0.7752	+ 0.0210		− 9.025	+ 0.105		
148	U Tauri Var 7	+ 3.4955	+ 0.0129		− 8.957	+ 0.460		
149	T Tauri Var 6	+ 3.4891	+ 0.0128		− 8.944	+ 0.460		
150	ϵ Reticuli	+ 1.0296	+ 0.0155		− 8.987	+ 0.139		1344
151	1513 Taylor	+ 0.8866	+ 0.0182		− 8.925	+ 0.120		1345
152	61 Tauri δ^1	+ 3.4438	+ 0.0119	+ 0.004	− 8.863	+ 0.455	+ 0.03	1346
153	62 Tauri	+ 3.6064	+ 0.0146	+ 0.004	− 8.807	+ 0.477	+ 0.01	1353
154		+ 1.0630	+ 0.0146		− 8.731	+ 0.144		
155	69 Tauri υ	+ 3.5722	+ 0.0138	+ 0.007	− 8.620	+ 0.475	+ 0.05	1367
156	74 Tauri ϵ	+ 3.4869	+ 0.0120	+ 0.005	− 8.422	+ 0.466	+ 0.03	1376
157	R Tauri Var 2	+ 3.2830	+ 0.0092		− 8.408	+ 0.439		
158		+ 3.2790	+ 0.0090		− 8.287	+ 0.440		
159	1582 Taylor	+ 0.8200	+ 0.0183		− 8.220	+ 0.113		1400
160	1519 Lacaille	+ 0.6570	+ 0.0212		− 8.030	+ 0.091		
161	1520 Lacaille	+ 1.1462	+ 0.0122		− 7.942	+ 0.157		
162	87 Tauri α (*Aldebaran*)	+ 3.4303	+ 0.0105	+ 0.004	− 7.827	+ 0.464	+ 0.17	1420
163	R Reticuli Var 1	+ 0.6055	+ 0.0210		− 7.502	+ 0.085		
164	IV 696 W B N	+ 3.6128	+ 0.0127		− 7.465	+ 0.493		
165		+ 1.3037	+ 0.0096		− 7.388	+ 0.180		
166	IV 726 W B N	+ 3.6192	+ 0.0127		− 7.363	+ 0.494		
167	94 Tauri τ	+ 3.5924	+ 0.0122	0.000	− 7.343	+ 0.491	+ 0.02	1440
168	95 Tauri	+ 3.6224	+ 0.0125	+ 0.004	− 7.269	+ 0.495	0.00	1453
169	1567 Lacaille	+ 0.6931	+ 0.0186		− 7.254	+ 0.097		
170	1566 Lacaille	+ 1.0381	+ 0.0128		− 7.207	+ 0.144		
171	1663 Taylor	+ 1.6441	+ 0.0059		− 7.119	+ 0.227		
172	1552 Lacaille	+ 0.6541	+ 0.0189		− 7.080	+ 0.092		1466
173		+ 0.7715	+ 0.0163		− 6.833	+ 0.109		
174	κ Doradûs	+ 0.8896	+ 0.0141		− 6.669	+ 0.125		1489
175	1620 Lacaille	+ 0.5403	+ 0.0197		− 6.553	+ 0.077		

153—168 —Proper motions adopted from '*Greenwich Catalogue*'

Mean Positions of Stars for 1864 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
176	IV 995 W B N	8 0	8	4	45	6 56	66	3	9 8	9	0 93
177		8 8	1	4	45	55 56	153	4	2 2	1	0 11
178	IV 1018 W B N	8 2	5	4	45	58 67	66	13	39 4	9	0 94
179	1656 Lacaille	7 9	3	4	47	56 06	149	2	1 1	3	0 05
180	3 Aurigæ ι	3 5		4	48	8 45	57	3	11 6	8	0 07
181	99 Tauri	6 5		4	49	33 67	66	16	3 5	6	0 89
182	1761 Taylor	7 1	1	4	49	59 57	129	18	38 7	1	0 03
183	1780 Taylor	7 5	1	4	52	15 36	144	38	49 0	1	0 02
184		9 0	1	4	52	18 70	129	39	52 4	1	0 01
185		9 1	1	4	52	40 71	150	37	52 6	1	0 95
186	1797 Taylor	6 8	2	4	54	51 40	148	16	57 6	2	0 04
187	102 Tauri ι	5 0	1	4	54	58 18	68	36	28 7	2	0 12
188	1697 Lacaille	8 7	1	4	56	51 21	129	7	11 5	1	0 09
189	1811 Taylor	6 0	1	4	57	2 80	129	55	3 5	1	0 05
190	1705 Lacaille	7 9	2	4	57	25 61	129	16	33 4	3	0 36
191	104 Tauri *m*	5 5		4	59	24 97	71	32	28 9	1	0 13
192	2 Leporis ε	4 0		4	59	42 22	112	33	22 4	5	0 08
193	103 Tauri	6 0		4	59	49 42	65	55	7 0	4	0 89
194	1739 Lacaille	8 6	2	5	2	51 11	146	57	53 7	2	0 50
195	13 Aurigæ α (*Capella*)	1 0		5	6	38 75	44	8	40 3	2	0 07
196	19 Orionis β (*Rigel*)	1 0		5	8	0 14	98	21	42 4	7	0 20
197		9 1	2	5	8	29 42	150	36	20 8	2	0 06
198		9 4	2	5	10	55 61	129	48	31 7	2	0 94
199		7 9	1	5	13	25 19	153	41	44 1	2	0 06
200		8 0	1	5	14	50 32	153	29	22 4	1	0 12
201		8 4	2	5	17	37 79	153	7	20 0	2	0 07
202	112 Tauri β	2 0		5	17	41 80	61	30	41 7	3	0 37
203	40 R P L	6 2		5	18	45 12	4	53	3 4	1	0 46
204	1984 Taylor	7 6	2	5	18	51 34	150	54	50 5	2	0 07
205		9 0	1	5	19	4 78	148	14	18 4	1	0 09
[45 66] 206		9 3	1	5	19	48 66	131	3	54 0	1	0 05
207		10 2	2	5	21	42 40	59	41	0 5	2	0 08
208		7 4	2	5	22	35 25	152	42	6 3	2	0 09
209	λ Doradûs	6 1	2	5	24	20 55	149	1	43 8	2	0 49
210	34 Orionis δ Var 1	2 0		5	25	3 60	90	24	9 8	3	0 08

176—178—Stars used with Mars in 1864 for investigation of the constant of Solar Parallax
203—944 Groombridge
207—Observed by mistake for the planet Ausonia
210—δ Orionis Var 1—Supposed to vary irregularly between 2 2 and 2 7 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
176	IV 995 W B N	+ 3 6345	+ 0 0114		− 6 437	+ 0 505		
177		+ 0 5767	+ 0 0186		− 6 370	+ 0 083		
178	IV 1018 W B N	+ 3 6306	+ 0 0113		− 6 365	+ 0 505		
179	1656 Lacaille	+ 0 9532	+ 0 0124		− 6 202	+ 0 135		
180	3 Aurigæ ι	+ 3 8962	+ 0 0144	− 0 003	− 6 186	+ 0 544	+ 0 02	1520
181	99 Tauri	+ 3 6324	+ 0 0109	+ 0 004	− 6 067	+ 0 508	+ 0 03	1527
182	1761 Taylor	+ 2 0280	+ 0 0036		− 6 031	+ 0 285		
183	1780 Taylor	+ 1 2692	+ 0 0084		− 5 842	+ 0 180		
184		+ 2 0115	+ 0 0038		− 5 837	+ 0 284		
185		+ 0 7980	+ 0 0139		− 5 807	+ 0 113		
186	1797 Taylor	+ 0 9956	+ 0 0111		− 5 624	+ 0 141		
187	102 Tauri ι	+ 3 5749	+ 0 0095	+ 0 004	− 5 614	+ 0 503	+ 0 06	1551
188	1697 Lacaille	+ 2 0258	+ 0 0036		− 5 456	+ 0 286		
189	1811 Taylor	+ 1 9954	+ 0 0038		− 5 439	+ 0 282		1561
190	1705 Lacaille	+ 2 0192	+ 0 0037		− 5 408	+ 0 286		
191	104 Tauri *m*	+ 3 5028	+ 0 0083	+ 0 040	− 5 240	+ 0 495	− 0 02	1568
192	2 Leporis ε	+ 2 5357	+ 0 0033	+ 0 001	− 5 215	+ 0 359	+ 0 08	1575
193	103 Tauri	+ 3 6492	+ 0 0097	0 000	− 5 206	+ 0 516	− 0 05	1572
194	1739 Lacaille	+ 1 0795	+ 0 0093		− 4 949	+ 0 155		
195	13 Aurigæ α (*Capella*)	+ 4 4123	+ 0 0173	+ 0 008	− 4 627	+ 0 629	+ 0 43	1613
196	19 Orionis β (*Rigel*)	+ 2 8805	+ 0 0040	− 0 001	− 4 511	+ 0 412	+ 0 02	1623
197		+ 0 7584	+ 0 0117		− 4 470	+ 0 110		
198		+ 1 9832	+ 0 0036		− 4 262	+ 0 285		
199		+ 0 4231	+ 0 0144		− 4 048	+ 0 062		
200		+ 0 4437	+ 0 0138		− 3 927	+ 0 065		
201		+ 0 4790	+ 0 0128		− 3 686	+ 0 070		
202	112 Tauri β	+ 3 7853	+ 0 0082	+ 0 003	− 3 681	+ 0 545	+ 0 20	1681
203	40 R P L	+ 18 4661	+ 0 6873		− 3 590	+ 4 652		1662
204	1984 Taylor	+ 0 7072	+ 0 0104		− 3 581	+ 0 103		1697
205		+ 0 9468	+ 0 0084		− 3 562	+ 0 138		
206		+ 1 9251	+ 0 0035		− 3 503	+ 0 279		
207		+ 3 8430	+ 0 0081		− 3 336	+ 0 554		
208		+ 0 5160	+ 0 0113		− 3 260	+ 0 075		
209	λ Doradûs	+ 0 8713	+ 0 0081		− 3 108	+ 0 127		1729
210	34 Orionis δ Var 1	+ 3 0627	+ 0 0038	+ 0 001	− 3 046	+ 0 443	+ 0 04	1730

181—193 —Proper motions adopted from *Greenwich Catalogue*
192 —Proper motions from Mr Stone s list *Vol* 33 *Memoirs R A S*

Mean Positions of Stars for 1864 *January 1st*

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
211	11 Leporis α	3 0		5	26	44 02	107	55	20 2	2	0 53
212	46 Orionis ε	2 0		5	29	18 85	91	17	31 1	5	0 10
213	123 Tauri 3	3 5		5	29	31 12	68	56	40 1	4	0 50
214		7 0	1	5	30	59 44	150	13	2 9	2	0 50
215	1949 Lacaille	6 2	1	5	32	15 80	154	19	4 4	1	0 06
216		8 6	2	5	32	42 45	150	11	35 4	3	0 37
217	α Columbæ	2 0		5	34	43 52	124	8	55 3	6	0 24
218	2113 Taylor	8 5	1	5	35	8 22	130	45	35 4	1	0 01
219	1971 Lacaille	7 1	2	5	36	21 47	149	11	31 8	2	0 07
220		9 6	1	5	36	43 56	129	57	50 9	1	0 07
221	2184 Taylor	9 1	2	5	43	54 50	150	46	24 6	2	0 54
222		9 1	2	5	44	9 53	152	58	2 5	2	0 07
223	54 Orionis χ^1	5 0		5	46	19 70	69	45	11 8	2	0 95
224	58 Orionis α Var 1	1 0		5	47	48 60	82	37	17 7	4	0 51
225		9 4	2	5	49	28 43	63	50	12 9	2	0 54
226		9 7	1	5	49	36 83	130	1	18 6	1	0 09
227	43 R P L	6 6		5	52	0 00	3	14	22 0	1	0 61
228		9 0	1	5	52	41 05	129	32	33 9	1	0 05
229		8 8	1	5	53	1 65	130	24	59 2	1	0 97
230	64 Orionis χ^3	5 7		5	55	24 37	70	18	40 8	2	0 13
[50 67] 231	62 Orionis χ^4	5 0	1	5	55	50 82 (67)	69	51	42 9	1	0 11
232	2301 Taylor	6 5	1	5	58	29 56	148	6	17 9	1	0 09
233	2310 Taylor	6 8	2	5	59	37 53	150	29	6 8	2	0 02
234	67 Orionis ν	5 0		5	59	48 47	75	13	8 0	6	0 25
235		8 8	1	6	2	21 04	153	44	39 2	1	0 12
236		9 5	2	6	8	35 03	155	3	30 6	2	0 54
237		9 5	1	6	8	58 37	130	31	33 4	1	0 09
238		9 6	1	6	10	6 15	153	14	23 0	1	0 17
239		7 0	2	6	11	2 58	149	53	51 5	2	0 06
240		8 8	1	6	11	43 04	152	1	49 0	2	0 14
241	13 Geminorum μ	3 3		6	14	43 98	67	25	14 6	8	0 41
242	2273 Lacaille	8 0	2	6	17	3 66	153	58	24 9	2	0 17
243	2286 Lacaille	7 0	2	6	18	48 28	153	45	43 4	2	0 14
244	α Argus (*Canopus*)	1 0		6	20	55 99	142	37	20 3	3	0 07
245		8 5	2	6	22	6 37	128	48	41 8	2	0 11

224 — α Orionis Var 2 (*Betelgeux*) – Irregularly variable from 1 0 to 1 5 magnitude
227 —1004 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
211	11 Leporis α	+ 2 6441	+ 0 0029	+ 0 001	− 2 901	+ 0 383	0 00	1741
212	46 Orionis ε	+ 3 0421	+ 0 0035	− 0 002	− 2 678	+ 0 441	+ 0 01	1765
213	123 Tauri 3	+ 3 5823	+ 0 0055	0 000	− 2 660	+ 0 519	+ 0 05	1767
214		+ 0 7546	+ 0 0079		− 2 532	+ 0 110		
215	1949 Lacaille	+ 0 3121	+ 0 0106		− 2 421	+ 0 046		1790
216		+ 2 7547	+ 0 0076		− 2 382	+ 0 110		
217	α Columbæ	+ 2 1706	+ 0 0027	+ 0 008	− 2 208	+ 0 316	0 00	1802
218	2113 Taylor	+ 1 9264	+ 0 0031		− 2 172	+ 0 280		
219	1971 Lacaille	+ 0 8418	+ 0 0066		− 2 065	+ 0 123		
220		+ 1 9573	+ 0 0030		− 2 033	+ 0 285		
221	2184 Taylor	+ 0 6883	+ 0 0059		− 1 407	+ 0 101		
222		+ 0 4578	+ 0 0067		− 1 385	+ 0 068		
223	54 Orionis χ^1	+ 3 5644	+ 0 0034	− 0 016	− 1 196	+ 0 520	+ 0 10	1876
224	58 Orionis α Var 2	+ 3 2449	+ 0 0027	+ 0 001	− 1 066	+ 0 473	0 00	1883
225		+ 3 7282	+ 0 0031		− 0 919	+ 0 543		
226		+ 1 9504	+ 0 0027		− 0 909	+ 0 284		
227	43 R P L	+26 6839	+ 0 2935		− 0 699	+ 3 889		1879
228		+ 1 9688	+ 0 0026		− 0 640	+ 0 287		
229		+ 1 9341	+ 0 0026		− 0 610	+ 0 282		
230	64 Orionis χ^3	+ 3 5503	+ 0 0022	+ 0 010	− 0 402	+ 0 518	+ 0 03	1934
231	62 Orionis χ^4	+ 3 5623	+ 0 0022	0 000	− 0 364	+ 0 519	+ 0 02	1939
232	2301 Taylor	+ 0 9235	+ 0 0030		− 0 131	+ 0 135		1954
233	2310 Taylor	+ 0 7104	+ 0 0030		− 0 033	+ 0 104		
234	67 Orionis ν	+ 3 4248	+ 0 0017	+ 0 001	− 0 017	+ 0 500	+ 0 02	1958
235		+ 0 3614	+ 0 0025		+ 0 205	+ 0 053		
236		+ 0 1993	+ 0 0005		+ 0 750	+ 0 020		
237		+ 1 9300	+ 0 0021		+ 0 777	+ 0 281		
238		+ 0 4232	+ 0 0006		+ 0 883	+ 0 062		
239		+ 0 7686	+ 0 0010		+ 0 996	+ 0 112		
240		+ 0 5576	+ 0 0005		+ 1 025	+ 0 081		
241	13 Geminorum μ	+ 3 6268	− 0 0003	+ 0 005	+ 1 288	+ 0 527	+ 0 14	2047
242	2273 Lacaille	+ 0 3416	− 0 0014		+ 1 492	+ 0 049		
243	2286 Lacaille	+ 0 3686	− 0 0017		+ 1 643	+ 0 053		2078
244	α Argûs (*Canopus*)	+ 1 3292	+ 0 0010	0 000	+ 1 830	+ 0 192	0 00	2096
245		+ 2 0017	+ 0 0018		+ 1 931	+ 0 290		

217 —223 —230 —231 —234 —Proper Motions adopted from *Greenwich Catalogue'*
214 —Proper Motions adopted from ' *Stone s Catalogue*

Mean Positions of Stars for 1864 *January 1st,*

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
246	2312 Lacaille	7.3	1	6	22	8.95	153	36	33.9	1	0.18
247	2524 Taylor	7.2	1	6	23	27.42	131	3	3.0	1	0.09
248	2541 Taylor	6.4	2	6	24	54.97	147	54	59.3	2	0.07
249		9.0	2	6	27	30.56	152	27	51.6	2	0.13
250		9.0	2	6	27	45.52	131	5	17.0	2	0.10
251		9.0	2	6	28	24.30	130	55	47.8	2	0.11
252		8.6	2	6	28	39.22	151	10	1.3	2	0.17
253	24 Geminorum γ	2.5		6	29	51.26	73	29	18.1	9	0.31
254		8.8	1	6	33	33.10	152	27	3.8	1	0.19
255		7.7	1	6	34	30.70	130	27	55.6	1	0.09
256	51 Cephei (*Hev.*)	5.3		6	35	39.16	2	45	19.4	15	0.26
257	2652 Taylor	7.0	2	6	36	32.83	151	24	49.6	2	0.11
258		9.3	1	6	37	53.05	153	20	37.4	1	0.18
259	2667 Taylor	8.1	1	6	38	22.76	148	59	39.8	1	0.18
260		8.6	1	6	39	7.42	131	3	25.0	1	0.17
261	9 Canis Majoris α (*Sirius*)	1.0		6	39	9.21	106	31	56.6	3	0.09
262		8.4	3	6	40	29.47	131	~~2~~	27.1	3	0.17
263	2724 Taylor	8.6	2	6	44	53.34	144	36	1.6	2	0.20
264		9.6	2	6	46	32.81	130	10	6.9	2	0.15
265	α Pictoris	5.0	2	6	46	47.58	151	47	46.1	2	0.11
(46 59 80) 266	2500 Lacaille	7.9	2	6	6 47	59 80 0.05	130	23	20.6	2	0.12
267	2532 Lacaille	6.8	3	6	48	12.87	150	5	32.5	3	0.18
268		9.3	2	6	48	50.56	130	10	17.0	2	0.15
269		9.0	1	6	49	43.02	129	8	19.7	1	0.09
270		10.7	2	6	50	25.88	75	17	25.1	2	0.08
271	21 Canis Majoris ε	1.7		6	53	16.89	118	47	21.4	7	0.11
272		9.0	3	6	53	47.80	129	47	31.5	3	0.15
273	3 Geminorum (1st)	6.2	1	6	56	1.73	69	12	28.9	1	0.09
274	43 Geminorum ζ Var. 1	4.3		6	56	2.48	69	14	1.9	5	0.09
275	2825 Taylor	8.9	2	6	56	52.03	150	54	38.0	2	0.13
276	23 Canis Majoris γ	4.5		6	57	36.31	105	26	5.5	4	0.12
277		9.1	2	6	58	23.20	66	56	5.7	2	0.14
278		9.0	1	6	59	11.80	66	59	54.9	1	0.18
279		9.3	1	6	59	48.93	129	43	4.3	1	0.07
280	2851 Taylor	7.8	2	7	0	49.81	145	44	48.1	2	0.19

270.—Observed by mistake for Pomona.
274.—3 Geminorum Var. 1.—Period 10.16 days.—Range 3.7 to 4.5 magnitude.

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension Annual Precession	In Right Ascension Secular Variation	In Right Ascension Proper Motion	In Polar Distance Annual Precession	In Polar Distance Secular Variation	In Polar Distance Proper Motion	Number in B A C
		s	s	s				
246	2312 Lacaille	+ 0 3902	− 0 0025		+ 1 935	+ 0 056		
247	2524 Taylor	+ 1 9139	+ 0 0018		+ 2 049	+ 0 277		
248	2541 Taylor	+ 0 9520	− 0 0006		+ 2 176	+ 0 137		2124
249		+ 0 5260	− 0 0030		+ 2 401	+ 0 075		
250		+ 1 9148	+ 0 0016		+ 2 424	+ 0 276		
251		+ 1 9216	+ 0 0016		+ 2 479	+ 0 277		
252		+ 0 6624	− 0 0025		+ 2 501	+ 0 095		
253	24 Geminorum γ	+ 3 4650	− 0 0015	+ 0 001	+ 2 605	+ 0 500	+ 0 04	2163
254		+ 0 5364	− 0 0043		+ 2 925	+ 0 076		
255		+ 1 9445	+ 0 0015		+ 3 008	+ 0 279		
256	51 Cephei (*Hev*)	+ 30 5188	− 1 8259	− 0 027	+ 3 107	+ 4 396	+ 0 08	2157
257	2652 Taylor	+ 0 6495	− 0 0042		+ 3 185	+ 0 092		2203
258		+ 0 4451	− 0 0061		+ 3 300	+ 0 063		
259	2607 Taylor	+ 0 8785	− 0 0029		+ 3 343	+ 0 125		
260		+ 1 9244	+ 0 0014		+ 3 407	+ 0 276		
261	9 Canis Majoris α	+ 2 6808	+ 0 0010	− 0 035	+ 3 409	+ 0 384	+ 1 24	2213
262		+ 1 9270	+ 0 0013		+ 3 524	+ 0 275		
263	2724 Taylor	+ 1 2266	− 0 0014		+ 3 903	+ 0 173		
264		+ 1 9067	+ 0 0013		+ 4 045	+ 0 279		
265	α Pictoris	+ 0 6308	− 0 0063	− 0 010	+ 4 066	+ 0 088	− 0 18	2260
266	2500 Lacaille	+ 1 9585	+ 0 0012		+ 4 084	+ 0 278		
267	2532 Lacaille	+ 0 7990	− 0 0050		+ 4 188	+ 0 112		
268		+ 1 9689	+ 0 0012		+ 4 241	+ 0 279		
269		+ 2 0095	+ 0 0013		+ 4 316	+ 0 284		
270		+ 3 4146	− 0 0031		+ 4 378	+ 0 484		
271	21 Canis Majoris ε	+ 2 3571	+ 0 0013	0 000	+ 4 620	+ 0 332	+ 0 02	2293
272		+ 1 9890	+ 0 0012		+ 4 664	+ 0 280		
273	5 Geminorum (1st)	+ 3 5647	− 0 0050		+ 4 853	+ 0 503		
274	43 Geminorum ζ Var 1	+ 3 5640	− 0 0050	− 0 001	+ 4 855	+ 0 503	+ 0 01	2305
275	2825 Taylor	+ 0 7426	− 0 0090		+ 4 925	+ 0 103		
276	23 Canis Majoris γ	+ 2 7144	+ 0 0005	+ 0 002	+ 4 988	+ 0 381	+ 0 01	2319
277		+ 3 6230	− 0 0058		+ 5 054	+ 0 509		
278		+ 3 6209	− 0 0059		+ 5 123	+ 0 509		
279		+ 1 9990	+ 0 0011		+ 5 176	+ 0 280		
280	2851 Taylor	+ 1 1774	− 0 0033		+ 5 261	+ 0 164		

265 —Proper Motions adopted from *Stone's Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
281	R Canis Minoris Var 1	9 2	1	7	1	13 77	79	15	50 6	1	0 08
282	2882 Taylor	8 9	4	7	3	26 90	151	1	2 7	4	0 13
283		9 3	1	7	4	58 07	130	12	33 2	1	0 07
284	2899 Taylor	8 9	1	7	5	47 76	130	8	49 2	1	0 09
285		9 5	1	7	5	51 92	129	23	13 1	1	0 08
286	2678 Lacaille	8 5	1	7	6	10 50	148	9	13 1	1	0 18
287		8 2	1	7	6	38 61	129	2	11 9	1	0 07
288		9 3	2	7	7	59 43	118	40	1 9	2	0 07
289		8 9	2	7	8	9 13	152	5	1 8	2	0 12
290	2940 Taylor	9 0	1	7	9	27 96	129	57	41 1	1	0 08
291	54 Geminorum λ	4 3		7	10	16 45	73	13	3 6	3	0 16
292		9 8	1	7	10	16 60	131	52	8 3	1	0 07
293	55 Geminorum δ	3 5		7	11	59 93	67	46	15 7	10	0 12
294		9 2	1	7	13	1 19	129	15	59 3	1	0 07
295		8 7	1	7	14	30 70	138	40	35 4	1	0 07
296	3005 Taylor	8 7	2	7	15	28 80	140	0	54 3	2	0 19
297	2805 Lacaille	8 3	1	7	17	21 21	153	8	1 0	1	0 18
298		9 2	1	7	18	4 08	129	42	31 1	1	0 09
299	3043 Taylor	7 0	1	7	19	13 59	129	16	21 8	1	0 12
300		9 0		7	19	35 74	123	7	59 6	1	0 08
301	63 Geminorum	5 5	1	7	19	39 81	68	16	48 8	2	0 95
302	3054 Taylor	7 4	2	7	20	2 06	151	41	28 6	2	0 14
303		7 7	1	7	21	34 28	131	50	25 7	1	0 00
304	6 Canis Minoris	5 5		7	22	13 39	77	42	55 1	1	0 13
305		9 8	1	7	23	24 08	51	57	26 3	1	0 07
306		9 0	1	7	24	58 41	123	8	19 2	1	0 17
307	S Canis Minoris Var 2	8 3	1	7	25	20 43	81	23	41 7	1	0 08
308	68 Geminorum	5 4		7	25	50 63	73	53	3 7	4	0 36
309	66 Geminorum α (*Castor*)	1 7		7	25	55 06	57	49	1 8	3	0 14
310		8 9	1	7	26	5 18	142	5	53 7	1	0 04
311		9 0	3	7	26	48 29	123	7	22 5	3	0 18
312		9 3	1	7	27	13 25	153	10	42 2	1	0 18
313	3126 Taylor	7 1	1	7	29	34 20	143	15	44 3	1	0 00
314	10 Can Min α (*Procyon*)	1 0		7	32	10 86	84	25	46 3	7	0 15
315	2893 Lacaille	7 5	2	7	32	43 41	121	49	27 6	2	0 15

281 — R Canis Minoris Var 1 — Period 335 days — Range 7 5 to 11th magnitude
307 — S Canis Minoris Var 2 — Period 382 days — Range 8 5 magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
281	R Canis Minoris Var 1	+ 3 3049	− 0 0031		+ 5 294	+ 0 463		
282	2882 Taylor	+ 0 7503	− 0 0090		+ 5 481	+ 0 103		
283		+ 1 9676	+ 0 0009		+ 5 609	+ 0 274		
284	2899 Taylor	+ 1 9905	+ 0 0010		+ 5 678	+ 0 277		
285		+ 2 0193	+ 0 0011		+ 5 685	+ 0 280		
286	2678 Lacaille	+ 1 0087	− 0 0055		+ 5 711	+ 0 139		
287		+ 2 0332	+ 0 0011		+ 5 750	+ 0 282		
288		+ 0 9634	+ 0 0059		+ 5 863	+ 0 132		
289		+ 0 6594	− 0 0102		+ 5 876	+ 0 089		
290	2940 Taylor	+ 2 0028	+ 0 0010		+ 5 986	+ 0 276		
291	54 Geminorum λ	+ 3 4565	− 0 0055	− 0 002	+ 6 054	+ 0 478	+ 0 04	2398
292		+ 1 9296	+ 0 0007		+ 6 054	+ 0 265		
293	55 Geminorum δ	+ 3 5917	− 0 0072	0 000	+ 6 198	+ 0 495	+ 0 02	2410
294		+ 2 0341	+ 0 0009		+ 6 282	+ 0 279		
295		+ 1 6234	− 0 0008		+ 6 406	+ 0 221		
296	3005 Taylor	+ 0 9653	− 0 0071		+ 6 487	+ 0 130		
297	2805 Lacaille	+ 0 5816	− 0 0132		+ 6 641	+ 0 077		
298		+ 2 0255	+ 0 0010		+ 6 700	+ 0 275		
299	3043 Taylor	+ 2 0435	+ 0 0009		+ 6 795	+ 0 277		
300		+ 2 2515	+ 0 0013		+ 6 826	+ 0 306		
301	63 Geminorum	+ 3 5728	− 0 0078	− 0 004	+ 6 832	+ 0 487	+ 0 10	2460
302	3054 Taylor	+ 0 7398	− 0 0111		+ 6 864	+ 0 098		
303		+ 1 9500	+ 0 0006		+ 6 988	+ 0 264		
304	6 Canis Minoris	+ 3 3446	− 0 0052	+ 0 004	+ 7 042	+ 0 453	0 00	2473
305		+ 4 0499	− 0 0165		+ 7 139	+ 0 549		
306		+ 2 2585	+ 0 0011		+ 7 267	+ 0 304		
307	S Canis Minoris Var 2	+ 3 2605	− 0 0044		+ 7 298	+ 0 440		
308	68 Geminorum	+ 3 4316	− 0 0066	− 0 004	+ 7 338	+ 0 463	0 00	2486
309	66 Gem α^2 (*Castor*)	+ 3 8550	− 0 0133	− 0 018	+ 7 344	+ 0 519	+ 0 08	2485
310		+ 1 4744	− 0 0024		+ 7 357	+ 0 197		
311		+ 2 2616	+ 0 0011		+ 7 416	+ 0 303		
312		+ 0 6169	− 0 0146		+ 7 449	+ 0 081		
313	3126 Taylor	+ 1 4160	− 0 0032		+ 7 640	+ 0 188		2507
314	10 Can Min (*Procyon*)	+ 3 1920	− 0 0041	− 0 048	+ 7 850	+ 0 425	+ 1 08	2522
315	2893 Lacaille	+ 2 3093	+ 0 0012		+ 7 894	+ 0 307		

291 —304 —Proper Motions adopted from " *Greenwich Catalogues* "

Mean Positions of Stars for 1864 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
				h	m	s						
316	2910 Lacaille	7·7	1	7	33	17·38	143	52	~~51·3~~ 6·8	1	0·14	[5·68]
317		9·8	1	7	35	10·00	66	15	55·0	1	0·09	
318		8·9	1	7	35	19·80	152	59	34·8	1	0·18	
319		8·6	1	7	35	29·22	144	19	41·9	1	0·04	
320	78 Geminorum β (*Pollux*)	1·3		7	36	59·42	61	38	56·1	6	0·14	
321	2971 Lacaille	7·6	2	7	40	18·27	143	54	58·3	2	0·15	
322	T Geminorum Var 4	10·4	1	7	41	8·37	65	55	48·7	1	0·09	
323		8·5	1	7	41	18·45	151	34	30·1	1	0·18	
324		8·7	1	7	41	32·28	144	18	41·3	1	0·15	
325	3013 Lacaille	7·0	2	7	43	29·04	142	0	43·2	2	0·14	
326	49 R P L	6·5		7	43	55·24	5	33	~~41·3~~	3	0·34	41·2
327	3034 Lacaille	8·8	1	7	44	4·63	153	51	39·1	1	0·18	
328	3031 Lacaille	7·7	3	7	45	5·13	144	22	27·0	3	0·12	
329	3290 Taylor	8·3	1	7	46	18·09	144	27	57·2	1	0·07	
330	1791 Brisbane	8·3	1	7	46	18·63	144	24	39·2	1	0·07	
331		8·5	2	7	46	20·45	144	22	26·6	2	0·17	
332		9·1	2	7	48	28·61	67	46	6·7	2	0·15	
333	3310 Taylor	7·0	1	7	48	32·66	149	17	52·9	1	0·20	
334		9·5	1	7	48	59·01	130	26	3·1	1	0·10	
335		6·9	1	7	49	29·50	152	34	55·6	1	0·18	
[5·12] 336		8·8	1	7	50	~~4·76~~ 5·12	129	38	25·7	1	0·19	
337	3339 Taylor	8·6	1	7	51	50·10	144	16	56·4	1	0·12	
338		8·7	1	7	52	54·08	144	41	42·0	1	0·16	
339	5 Cancri	6·0	2	7	53	45·22	73	10	22·6	2	0·06	
340	6 Cancri	5·5		7	55	9·70	61	49	40·3	4	0·13	
341	3373 Taylor	7·9	2	7	55	13·81	144	11	52·5	2	0·16	
342		8·0	1	7	55	20·11	128	30	12·2	1	0·21	
343	1855 Brisbane	6·9	2	7	55	28·07	152	55	47·2	2	0·18	
344	3380 Taylor	7·8	3	7	55	47·96	144	10	33·8	3	0·14	
345		9·8	1	7	56	31·51	129	21	20·2	1	0·09	
346	3154 Lacaille	5·6	3	7	58	36·73	153	11	28·7	3	0·14	
347	12 Cancri	6·0	2	8	1	6·48	75	57	58·6	2	0·06	
348	3174 Lacaille	7·2	2	8	1	25·69	155	37	56·0	2	0·22	
349	15 Argûs	3·0		8	1	45·15	113	54	51·6	9	0·14	
350		9·1	1	8	2	2·82	113	46	47·6	1	0·12	

288 — 322 —T Geminorum Var 4 —Period ~~228~~ days —Range 8·5 magnitude to invisibility
326 —1359 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
316	2910 Lacaille	+ 1 3896	− 0 0037		+ 7 940	+ 0 183		
317		+ 3 6100	− 0 0131		+ 8 090	+ 0 479		
318		+ 0 6726	− 0 0152		+ 8 103	+ 0 087		
319		+ 1 3648	− 0 0041		+ 8 116	+ 0 179		
320	78 Gem β (*Pollux*)	+ 3 7298	− 0 0128	− 0 049	+ 8 236	+ 0 491	+ 0 06	2555
321	2971 Lacaille	+ 1 4105	− 0 0038		+ 8 500	+ 0 182		
322	T Geminorum Var 4	+ 3 6121	− 0 0110		+ 8 565	+ 0 472		
323		+ 0 8393	− 0 0128		+ 8 579	+ 0 107		
324		+ 1 3903	− 0 0041		+ 8 598	+ 0 179		
325	3013 Lacaille	+ 1 5317	− 0 0026		+ 8 751	+ 0 197		
326	49 R P L	+ 15 4159	− 1 2230		+ 8 785	+ 2 017		2585
327	3034 Lacaille	+ 0 6237	− 0 0180		+ 8 797	+ 0 078		
328	3031 Lacaille	+ 1 3990	− 0 0042		+ 8 877	+ 0 179		
329	3290 Taylor	+ 1 3977	− 0 0043		+ 8 972	+ 0 178		
330	1791 Brisbane	+ 1 4012	− 0 0043		+ 8 973	+ 0 179		
331		+ 1 4041	− 0 0042		+ 8 987	+ 0 179		
332		+ 3 5585	− 0 0109		+ 9 141	+ 0 458		
333	3310 Taylor	+ 1 0684	− 0 0095		+ 9 148	+ 0 135		
334		+ 2 0593	+ 0 0010		+ 9 181	+ 0 263		
335		+ 0 7832	− 0 0158		+ 9 221	+ 0 098		
336		+ 2 0897	+ 0 0011		+ 9 266	+ 0 266		
337	3339 Taylor	+ 1 4297	− 0 0041		+ 9 403	+ 0 180		
338		+ 1 4096	− 0 0044		+ 9 485	+ 0 177		
339	5 Cancri	+ 3 4277	− 0 0090	− 0 001	+ 9 551	+ 0 436	0 00	2664
340	6 Cancri	+ 3 6995	− 0 0148	− 0 005	+ 9 659	+ 0 468	+ 0 07	2672
341	3373 Taylor	+ 1 4478	− 0 0041		+ 9 664	+ 0 181		
342		+ 2 1404	+ 0 0013		+ 9 672	+ 0 270		
343	1855 Brisbane	+ 0 7811	− 0 0165		+ 9 683	+ 0 096		2680
344	3380 Taylor	+ 1 4513	− 0 0040		+ 9 704	+ 0 181		
345		+ 2 1143	+ 0 0013		+ 9 763	+ 0 265		
346	3154 Lacaille	+ 0 7728	− 0 0172		+ 9 922	+ 0 094		2713
347	12 Cancri	+ 3 3607	− 0 0083	− 0 001	+ 10 110	+ 0 419	+ 0 02	2720
348	3174 Lacaille	+ 0 5249	− 0 0246		+ 10 135	+ 0 062		
349	15 Argûs	+ 2 5608	+ 0 0009	− 0 007	+ 10 160	+ 0 318	− 0 06	2728
350		+ 2 5645	+ 0 0009		+ 10 182	+ 0 318		

339 —347 —Proper motions adopted from " *Greenwich Catalogues* "

Mean Positions of Stars for 1864 *January 1st*

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
351	3200 Lacaille	6 9	2	8	4	47 63	153	7	24 3	2	0 18
352		8 6	1	8	5	19 41	130	45	22 9	1	0 09
353		10 1	2	8	5	20 10	77	37	34 8	2	0 23
354		9 0	3	8	5	26 43	77	24	57 4	3	0 23
355		9 7	3	8	8	19 71	77	26	31 1	3	0 21
356	R Cancri Var 1	8 0	2	8	9	3 87	77	51	33 0	2	0 19
357		9 2	3	8	9	7 45	77	27	27 9	3	0 24
358		9 7	1	8	9	55 34	74	16	13 7	1	0 09
359		9 9	3	8	10	28 84	77	37	47 6	3	0 22
360	16224 Lalande	8 5	1	8	10	33 55	73	54	11 0	1	0 07
361		8 8	1	8	12	17 13	128	43	38 1	1	0 10
362		8 9	1	8	12	45 20	128	40	53 7	1	0 10
363		9 7	1	8	12	57 45	130	45	32 2	1	0 13
364		9 2	2	8	13	20 63	131	41	13 8	2	0 15
365		9 6	1	8	13	42 39	133	17	18 1	1	0 12
366		9 7	1	8	14	30 56	154	5	5 7	1	0 18
367		9 3	1	8	16	25 78	77	31	46 7	1	0 20
368		8 6	1	8	17	22 71	77	49	9 1	1	0 19
369		9 0	1	8	17	23 61	141	15	52 4	1	0 12
370	VIII 459 W B N	8 7	3	8	20	17 12	74	27	21 4	3	0 13
371	29 Cancri	6 0		8	21	2 13	75	20	30 1	1	0 13
372		9 0	3	8	23	7 81	73	25	24 7	3	0 19
373	3620 Taylor	8 0	1	8	23	10 60	130	47	47 6	1	0 12
374		8 6	1	8	23	32 12	128	38	35 7	1	0 25
375	31 Cancri θ	5 3		8	23	50 24	71	26	55 0	1	0 95
376		9 5	4	8	24	44 83	73	45	40 7	4	0 17
377	33 Cancri η	5 7		8	24	50 41	69	5	59 4	9	0 16
378	3651 Taylor	7 8	1	8	25	39 62	130	3	20 0	1	0 10
379	3652 Taylor	8 2	2	8	25	43 63	130	2	38 3	2	0 10
380	3393 Lacaille	7 9	2	8	25	56 92	149	40	8 6	2	0 12
381		9 1	1	8	26	25 43	130	30	28 1	1	0 27
382	VIII 635 W B N	9 0	4	8	27	38 93	73	48	19 4	4	0 17
383	U Cancri Var 4	9 7	2	8	27	58 93	70	38	20 4	2	0 10
384	3672 Taylor	7 2	2	8	28	29 95	74	13	7 8	3	0 13
385	16890 Lalande	8 9	3	8	28	41 64	73	12	52 3	3	0 26

356 —R Cancri Var 1 —Period 354 days —Range 6th to 12th magnitude
358 —360 —Comparison stars for Ariadne in 1863
370 —Comparison star for new variable star W Cancri Var 5
372 —376 —382 —384 —385 —Comparison stars for Freia
383 —U Cancri Var 4 —Period 306 days —Range, 9th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
351	3200 Lacaille	+ 0 8156	− 0 0172		+10 388	+ 0 098		
352		+ 2 0878	+ 0 0013		+10 428	+ 0 256		
353		+ 3 3198	− 0 0080		+10 429	+ 0 410		
354		+ 3 3270	− 0 0081		+10 437	+ 0 410		
355		+ 3 3245	− 0 0081		+10 651	+ 0 406		
356	R Cancri Var 1	+ 3 3153	− 0 0080		+10 707	+ 0 404		
357		+ 3 3236	− 0 0082		+10 711	+ 0 405		
358		+ 3 3397	− 0 0096		+10 770	+ 0 412		
359		+ 3 3191	− 0 0082		+10 811	+ 0 403		
360	16224 Lalande	+ 3 3970	− 0 0097		+10 817	+ 0 412		
361		+ 2 1736	+ 0 0018		+10 944	+ 0 261		
362		+ 2 1763	+ 0 0018		+10 978	+ 0 261		
363		+ 2 1083	+ 0 0013		+10 993	+ 0 252		
364		+ 2 0773	+ 0 0015		+11 021	+ 0 248		
365		+ 2 0209	+ 0 0013		+11 047	+ 0 241		
366		+ 0 7810	− 0 0198		+11 106	+ 0 090		
367		+ 3 3169	− 0 0085		+11 246	+ 0 395		
368		+ 3 3104	− 0 0084		+11 314	+ 0 394		
369		+ 1 6961	− 0 0014		+11 315	+ 0 199		
370	VIII 459 W B N	+ 3 3765	− 0 0100		+11 523	+ 0 398		
371	29 Cancri	+ 3 3576	− 0 0096	− 0 002	+11 577	+ 0 395	+ 0 01	2836
372		+ 3 3948	− 0 0109		+11 726	+ 0 397		
373	3620 Taylor	+ 2 1361	+ 0 0020		+11 730	+ 0 248		
374		+ 2 2060	+ 0 0023		+11 755	+ 0 256		
375	31 Cancri θ	+ 3 4353	− 0 0118	− 0 006	+11 777	+ 0 401	+ 0 06	2853
376		+ 3 3864	− 0 0106		+11 841	+ 0 394		
377	33 Cancri η	+ 3 4839	− 0 0129	− 0 005	+11 848	+ 0 404	+ 0 06	2862
378	3651 Taylor	+ 2 1674	+ 0 0022		+11 906	+ 0 249		
379	3652 Taylor	+ 2 1681	+ 0 0022		+11 910	+ 0 249		
380	3393 Lacaille	+ 1 2348	− 0 0095		+11 926	+ 0 140		
381		+ 2 1552	+ 0 0022		+11 959	+ 0 247		
382	VIII 635 W B N	+ 3 3825	− 0 0107		+12 045	+ 0 390		
383	U Cancri Var 4	+ 3 4473	− 0 0124		+12 068	+ 0 397		
384	3672 Taylor	+ 3 3734	− 0 0105		+12 104	+ 0 387		2888
385	16890 Lalande	+ 3 3934	− 0 0110		+12 118	+ 0 389		

371—Proper Motions adopted from "*Greenwich Catalogue*.

Mean Positions of Stars for 1864 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
				h	*m*	*s*						
386	VIII 684 W B N	8 9	1	8	29	1 20	70	38	54 4	1	0 27	
387	VIII 699 W B N	9 0	1	8	29	31 11	70	39	37 1	1	0 25	
388		9 4	1	8	31	12 43	129	45	24 0	1	0 16	
389	3710 Taylor	8 2	1	8	31	24 29	141	21	4 0	1	0 15	
390		8 6	1	8	33	9 73	129	23	27 0	1	0 20	
391	VIII 852 W B N	8 9	3	8	34	1 84	74	7	39 7	3	0 13	
392		9 0	3	8	34	39 45	129	46	11 8	3	0 18	
393	3491 Lacaille	7 9	1	8	36	1 13	152	21	51 3	1	0 27	
394	S Cancri Var 2	8 3	1	8	36	9 77	70	28	48 0	1	0 27	
395	3767 Taylor	7 6	1	8	36	19 67	140	50	15 2	1	0 19	
396	47 Cancri δ	4 3		8	36	57 18	71	20	55 9	1	0 95	
397		9 2	1	8	37	16 10	136	8	32 1	1	0 26	
398	17231 Lalande	7 9	2	8	37	44 14	74	27	41 3	3	0 14	
399		8 3	2	8	37	50 58	136	5	33 6	2	0 20	
400	VIII 977 W B N	9 5	3	8	39	15 23	74	49	0 5	3	0 12	
401	11 Hydræ ε	3 5		8	39	34 29	83	5	4 5	6	0 18	
402		8 5	1	8	40	29 34	129	15	34 0	1	0 15	
403	VIII 1043 W B N	8 3	3	8	42	21 48	74	39	54 4	3	0 11	
404		8 7	2	8	45	46 93	86	27	12 1	2	0 26	
405	60 R P L	6 5		8	46	23 08	5	16	~~53 9~~	6	0 40	53 6
406	S Hydræ Var 3	8 8	2	8	46	28 36	86	25	13 4	2	0 23	
407	3886 Taylor	7 9	3	8	48	14 02	136	52	52 8	3	0 17	
408	T Hydræ Var 4	9 9	2	8	49	2 74	90	37	29 2	2	0 23	
409		7 7	1	8	49	13 13	132	54	19 8	1	0 19	
410		7 6	1	8	49	20 12	132	59	0 7	1	0 17	
411	9 Ursæ Majoris ι	3 0		8	49	52 84	41	25	37 7	4	0 15	
412		8 0	1	8	50	15 28	132	56	55 1	1	0 18	
413		9 8	1	8	50	46 62	98	44	16 8	1	0 13	
414	VIII 1302 W B E	9 0	1	8	50	49 33	98	53	46 7	1	0 23	
415		9 2	2	8	50	58 82	98	35	9 3	2	0 17	
416	65 Cancri α	4 7		8	51	2 70	77	37	6 1	2	0 21	
417		9 3	2	8	54	9 86	142	41	8 8	2	0 19	
418		8 4	1	8	54	20 33	130	34	53 3	1	0 28	
419	3941 Taylor	8 5	1	8	54	59 75	144	6	23 4	1	0 10	
420		8 1	1	8	56	39 39	146	55	44 0	1	0 27	

391 —398 —400 —403 —Comparison stars for the planet Freia
394 —S Cancri Var 2 —Period 9 48 days —Range 8th to 10 5 magnitude
405 —1286 Carrington
406 —S Hydræ Var 3 —Period 256 days —Range 8th to 13th magnitude
408 —T Hydræ Var 4 —Period 289 days —Range 7th to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
386	VIII 684 W B N	+ 3 4458	− 0 0124		+ 12 141	+ 0 395		
387	VIII 699 W B N	+ 3 4449	− 0 0124		+ 12 175	+ 0 394		
388		+ 2 1933	+ 0 0014		+ 12 293	+ 0 222		
389	3710 Taylor	+ 1 7519	− 0 0006		+ 12 306	+ 0 197		
390		+ 2 2104	+ 0 0026		+ 12 427	+ 0 248		
391	VIII 852 W B N	+ 3 3696	− 0 0109		+ 12 487	+ 0 379		
392		+ 2 2031	+ 0 0027		+ 12 529	+ 0 246		
393	3491 Lacaille	+ 1 0877	− 0 0141		+ 12 623	+ 0 118		2949
394	S Cancri Var 2	+ 3 4402	− 0 0130		+ 12 632	+ 0 385		
395	3767 Taylor	+ 1 2862	− 0 0089		+ 12 643	+ 0 141		
396	47 Cancri δ	+ 3 4216	− 0 0125	− 0 002	+ 12 686	+ 0 382	+ 0 24	2953
397		+ 1 9961	+ 0 0019		+ 12 707	+ 0 220		
398	17231 Lalande	+ 3 3592	− 0 0109		+ 12 738	+ 0 373		
399		+ 1 9997	+ 0 0019		+ 12 746	+ 0 220		
400	VIII 977 W B N	+ 3 3508	− 0 0108		+ 12 841	+ 0 369		
401	11 Hydræ ε	+ 3 1964	− 0 0071	− 0 013	+ 12 862	+ 0 351	+ 0 04	2971
402		+ 2 2365	+ 0 0031		+ 12 924	+ 0 244		
403	VIII 1043 W B N	+ 3 3505	− 0 0109		+ 13 048	+ 0 365		
404		+ 3 1342	− 0 0058		+ 13 275	+ 0 277		
405	60 R P L	+ 13 8924	− 1 7345		+ 13 314	+ 1 509		
406	S Hydræ Var 3	+ 3 1347	− 0 0059		+ 13 320	+ 0 336		
407	3886 Taylor	+ 2 0120	+ 0 0025		+ 13 434	+ 0 212		
408	T Hydræ Var 4	+ 2 9220	− 0 0018		+ 13 488	+ 0 309		
409		+ 2 1530	+ 0 0033		+ 13 498	+ 0 226		
410		+ 2 1510	+ 0 0033		+ 13 506	+ 0 226		
411	9 Ursæ Majoris ι	+ 4 1896	− 0 0446	− 0 047	+ 13 541	+ 0 443	+ 0 28	3043
412		+ 2 1559	+ 0 0034		+ 13 566	+ 0 226		
413		+ 2 9210	− 0 0016		+ 13 599	+ 0 307		
414	VIII 1302 W B E	+ 2 9183	− 0 0016		+ 13 602	+ 0 307		
415		+ 2 9238	− 0 0019		+ 13 612	+ 0 307		
416	65 Cancri α	+ 3 2876	+ 0 0098	0 000	+ 13 616	+ 0 346	+ 0 04	3055
417		+ 1 8005	+ 0 0005		+ 13 815	+ 0 184		
418		+ 2 2426	+ 0 0039		+ 13 826	+ 0 231		
419	3941 Taylor	+ 1 7375	− 0 0003		+ 13 867	+ 0 177		
420		+ 1 5992	+ 0 0027		+ 13 972	+ 0 161		

Mean Positions of Stars for 1864 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
421		9 5	1	8	56	43 30	129	18	12 4	1	0 15
422		9 0		8	58	5 48	146	49	41 4	1	0 24
423		9 0	1	8	58	9 40	146	18	23 9	1	0 27
424		8 9	3	8	59	6 04	145	38	9 23	3	0 21
425	76 Cancri κ	5 5		9	0	22 78	78	47	12 3	3	0 16
426		8 2	2	9	1	3 51	150	1	31 8	2	0 19
427		8 0	1	9	1	50 14	128	57	10 7	1	0 21
428	3705 Lacaille	7 2	2	9	2	13 95	151	17	3 6	2	0 29
429		10 5	1	9	2	15 75	71	26	28 1	1	0 16
430		8 7	1	9	4	23 60	130	29	40 7	1	0 28
431	3713 Lacaille	8 8	1	9	4	34 83	143	49	12 4	1	0 21
432	4021 Taylor	7 1	2	9	5	31 14	138	44	11 5	2	0 18
433		7 7	1	9	6	26 92	142	29	27 7	1	0 27
434		8 8	1	9	6	30 83	138	41	30 2	1	0 15
435		8 6	3	9	8	14 25	148	14	15 1	3	0 18
436	83 Cancri –	6 7		9	11	23 12	71	43	18 5	4	0 23
437		8 2	4	9	11	48 62	130	45	7 9	4	0 21
438		7 9	2	9	13	3 26	72	17	57 5	3	0 22
439	ι Argus	2 0		9	13	27 06	148	42	22 3	3	0 23
440		8 6	2	9	14	37 92	24	50	29 3	2	0 25
441		9 0	1	9	15	15 46	143	48	40 2	1	0 22
442		9 0	1	9	15	54 93	25	4	26 1	1	0 23
443		9 0	1	9	16	6 17	140	7	34 8	1	0 16
444	9881 O A N	9 2	2	9	17	37 29	25	3	44 7	2	0 18
445		7 7	2	9	19	29 08	75	6	31 1	2	0 16
446	30 Hydræ α Var 主	2 3		9	20	54 21	98	4	15 5	6	0 21
447	3853 Lacaille	8 1	3	9	22	32 01	131	59	15 8	3	0 23
448	25 Ursæ Majoris θ	3 3		9	23	44 56	37	42	18 9	2	0 18
449	3886 Lacaille	7 8	1	9	24	43 28	141	49	48 5	1	0 21
450	3887 Lacaille	8 1	2	9	24	55 04	140	0	31 7	2	0 24
451		9 0	3	9	26	42 19	145	2	26 6	3	0 23
452		9 0	1	9	26	55 57	144	58	8 4	1	0 25
453		8 3	1	9	27	58 54	128	45	53 6	1	0 27
454	4226 Taylor	7 0	1	9	28	37 63	146	29	33 0	1	0 18
455		8 2	1	9	28	54 88	128	46	55 4	1	0 15

440 —442 —444 —Comparison stars for Comet 2 of 1861

2 446 —α Hydræ Var 主—Supposed to vary irregularly from 2 0 to 2 5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
421		+ 2.2872	+ 0.0040		+ 13.976	+ 0.233		
422		+ 1.6138	− 0.0024		+ 14.062	+ 0.162		
423		+ 1.6428	− 0.0018		+ 14.066	+ 0.165		
424		+ 1.6840	− 0.0010		+ 14.126	+ 0.168		
425	76 Cancri κ	+ 3.2592	− 0.0094	− 0.002	+ 14.204	+ 0.330	+ 0.00	3111
426		+ 1.4405	− 0.0062		+ 14.247	+ 0.142		
427		+ 2.3140	+ 0.0044		+ 14.294	+ 0.231		
428	3705 Lacaille	+ 1.3633	− 0.0083		+ 14.319	+ 0.133		
429		+ 3.3864	− 0.0133		+ 14.320	+ 0.340		
430		+ 2.2804	+ 0.0047		+ 14.450	+ 0.225		
431	3713 Lacaille	+ 1.8055	+ 0.0010		+ 14.462	+ 0.176		
432	4021 Taylor	+ 2.0[illegible]09	+ 0.0037		+ 14.518	+ 0.197		
433		+ 1.8755	+ 0.0022		+ 14.575	+ 0.182		
434		+ 2.0272	+ 0.0037		+ 14.578	+ 0.197		
435		+ 1.6009	− 0.0025		+ 14.682	+ 0.153		
436	83 Cancri	+ 3.3684	− 0.0134	− 0.012	+ 14.867	+ 0.323	+ 0.16	3171
437		+ 2.3001	+ 0.0052		+ 14.893	+ 0.219		
438		+ 3.3561	− 0.0131		+ 14.966	+ 0.320		
439	ι Argûs	+ 1.6106	− 0.0022	− 0.003	+ 14.988	+ 0.150	+ 0.02	3186
440		+ 4.9798	− 0.1139		+ 15.056	+ 0.473		
441		+ 1.8686	+ 0.0026		+ 15.093	+ 0.174		
442		+ 4.9476	− 0.1123		+ 15.130	+ 0.466		
443		+ 2.0225	+ 0.0045		+ 15.141	+ 0.186		
444	9881 O. A. N.	+ 4.9325	− 0.1126		+ 15.229	+ 0.461		
445		+ 3.3012	− 0.0116		+ 15.334	+ 0.303		
446	30 Hydræ α Var ±	+ 2.9506	− 0.0013	− 0.004	+ 15.415	+ 0.268	− 0.03	3223
447	3853 Lacaille	+ 2.3089	+ 0.0063		+ 15.504	+ 0.207		
448	25 Ursæ Majoris θ	+ 4.1620	− 0.0561	− 0.111	+ 15.571	+ 0.374	+ 0.57	3242
449	3886 Lacaille	+ 2.0057	+ 0.0052		+ 15.626	+ 0.176		
450	3887 Lacaille	+ 2.0740	+ 0.0057		+ 15.636	+ 0.182		
451		+ 1.8862	+ 0.0037		+ 15.733	+ 0.164		
452		+ 1.8907	+ 0.0038		+ 15.745	+ 0.164		
453		+ 2.4110	+ 0.0066		+ 15.802	+ 0.210		
454	4226 Taylor	+ 1.8332	+ 0.0030		+ 15.837	+ 0.157		
455		+ 2.4142	+ 0.0067		+ 15.852	+ 0.209		

439.—Proper Motions taken from Mr. Stone's list, *Mem. R. A. S.* Vol. 42.

Mean Positions of Stars for 1861 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
456		8.3	2	9	29	1.32	128	49	33.9	2	0.17
457	4259 Taylor	5.3	1	9	31	57.68	138	44	48.5	1	0.17
458		8.8	3	9	32	27.63	129	53	53.7	3	0.21
459		7.8	1	9	32	54.20	129	47	34.1	1	0.21
460	14 Leonis *o*	4.0		9	33	53.35	79	29	27.6	1	0.18
461		8.9	3	9	34	43.92	130	31	39.4	3	0.19
462		8.5	1	9	35	33.97	151	56	22.6	1	0.27
463	17 Leonis *ε*	3.0		9	38	7.54	65	36	6.1	8	0.19
464	R Leonis Var 1	6.0	5	9	40	14.42	77	56	32.3	5	0.26
465		8.7	1	9	41	50.08	130	49	18.8	1	0.07
466		9.0	1	9	42	42.08	130	47	19.2	1	0.23
467		9.0	3	9	43	27.09	143	56	50.4	3	0.21
468		7.7	1	9	43	34.18	143	45	55.2	1	0.19
469		8.8	1	9	45	55.93	129	2	51.8	1	0.22
470	70 R P L	6.5		9	46	18.04	5	25	49.2	3	0.31
471		9.2	2	9	46	26.54	129	6	56.1	2	0.18
472	IX 1057 W B E	7.3	3	9	49	44.67	85	6	12.1	3	0.14
473	4402 Taylor	7.6	3	9	49	53.40	129	47	30.0	3	0.27
474	29 Leonis *π*	5.0		9	53	1.46	81	18	17.5	10	0.10
[53 10] 475		9.3	1	9	53	3.10 ~~52.92~~	152	6	48.9	1	0.27
476	4445 Taylor	8.1	4	9	54	43.19	147	28	40.8	4	0.19
477		8.3	1	9	56	26.50	144	3	50.4	1	0.18
478		9.0	1	9	57	7.30	129	56	40.4	1	0.16
479	4476 Taylor	8.5	1	9	57	51.23	115	36	1.3	1	0.25
480		8.8	2	9	58	26.00	150	38	57.9	2	0.30
481	14 Sextantis	6.0		9	59	40.60	83	43	36.5	1	0.11
482	31 Leonis A	5.0		10	0	41.11	79	20	15.0	1	0.21
483	32 Leonis *α* (*Regulus*)	1.3		10	1	7.55	77	22	10.5	14	0.25
484		9.0	1	10	2	46.64	129	57	33.4	1	0.16
485	4538 Taylor	7.5	3	10	6	9.42	129	19	27.1	8	0.20
486		9.1	1	10	9	1.46	139	51	41.8	1	0.18
487	72 R P L	5.9		10	9	20.72	5	3	38.2	5	0.48
488	4577 Taylor	8.8	2	10	9	47.74	128	36	58.0	2	0.25
489		9.0	1	10	10	15.97	139	51	9.0	1	0.28
490	41 Leonis *γ*	2.5		10	12	28.18	69	28	19.9	12	0.24

464 — R Leonis Var 1 —Period 312 days —Range 5th to 10th magnitude
470 —1451 Carrington
472 —Comparison star for Asia in 1864
487 —1620 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
456		+ 2 4135	+ 0 0068		+ 15 858	+ 0 208		
457	4259 Taylor	+ 2 1545	+ 0 0063		+ 16 014	+ 0 182		3300
458		+ 2 4011	+ 0 0072		+ 16 041	+ 0 203		
459		+ 2 4054	+ 0 0072		+ 16 064	+ 0 203		
460	14 Leonis *o*	+ 3 2197	− 0 0093	− 0 013	+ 16 115	+ 0 273	+ 0 04	3312
461		+ 2 3939	+ 0 0075		+ 16 160	+ 0 200		
462		+ 1 5939	− 0 0020		+ 16 203	+ 0 130		
463	17 Leonis *ε*	+ 3 4239	− 0 0180	− 0 004	+ 16 334	+ 0 282	+ 0 02	3331
464	R Leonis Var 1	+ 3 2356	− 0 0101		+ 16 440	+ 0 263		3345
465		+ 2 4172	+ 0 0083		+ 16 520	+ 0 193		
466		+ 2 4214	+ 0 0084		+ 16 562	+ 0 192		
467		+ 2 0414	+ 0 0075		+ 16 599	+ 0 160		
468		+ 2 0490	+ 0 0075		+ 16 605	+ 0 160		
469		+ 2 4733	+ 0 0086		+ 16 720	+ 0 192		
470	70 R 1 L	+ 10 8196	− 1 5902		+ 16 738	+ 0 860		
471		+ 2 4738	+ 0 0086		+ 16 745	+ 0 192		
472	IX 1057 W B E	+ 3 1337	− 0 0062		+ 16 903	+ 0 239		
473	4402 Taylor	+ 2 4732	+ 0 0091		+ 16 909	+ 0 187		
474	29 Leonis *π*	+ 3 1796	− 0 0080	− 0 003	+ 17 055	+ 0 236	0 03	3415
475		+ 1 7509	+ 0 0034		+ 17 094	+ 0 127		
476	4445 Taylor	+ 1 9821	+ 0 0088		+ 17 133	+ 0 143		
477		+ 2 1251	+ 0 0102		+ 17 210	+ 0 152		
478		+ 2 5001	+ 0 0099		+ 17 240	+ 0 179		
479	4476 Taylor	+ 2 0799	+ 0 0100		+ 17 273	+ 0 147		
480		+ 1 8693	+ 0 0067		+ 17 299	+ 0 131		
481	14 Sextantis	+ 3 1456	− 0 0066	− 0 005	+ 17 355	+ 0 222	+ 0 01	3449
482	31 Leonis A	+ 3 1973	− 0 0091	− 0 009	+ 17 398	+ 0 225	+ 0 05	3457
483	32 Leonis *α* (*Regulus*)	+ 3 2205	− 0 0102	− 0 019	+ 17 417	+ 0 225	− 0 01	3459
484		+ 2 5238	+ 0 0106		+ 17 488	+ 0 172		
485	4538 Taylor	+ 2 5503	+ 0 0109		+ 17 631	+ 0 169		
486		+ 2 3340	+ 0 0131		+ 17 749	+ 0 150		
487	72 R P L	+ 10 0817	− 1 6686	− 0 079	+ 17 762	+ 0 675	+ 0 05	3495
488	4577 Taylor	+ 2 5782	+ 0 0112		+ 17 781	+ 0 166		
489		+ 2 3418	+ 0 0134		+ 17 800	+ 0 149		
490	41 Leonis γ^1	+ 3 2983	− 0 0148	+ 0 019	+ 17 888	+ 0 208	+ 0 15	3523

481 —Proper Motions adopted from ' *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January* 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
491	43 Leonis	6 5		10	15	53 40	82	46	5 1	2	0 07
492		9 2	2	10	16	8 20	75	24	30 6	2	0 26
493		8 9	2	10	16	11 79	129	16	16 5	2	0 17
494	4653 Taylor	8 4	1	10	18	1 94	151	23	10 5	1	0 18
495	45 Leonis	6 0		10	20	27 87	79	32	44 1	3	0 14
496		9 0	1	10	21	55 82	146	59	1 4	1	0 28
497	30 Sextantis	6 0		10	23	20 43	89	56	25 8	2	0 22
498		10 0	1	10	23	22 20	76	5	17 7	2	0 21
499	47 Leonis ρ	4 3		10	25	38 86	79	59	41 4	10	0 26
500		9 2	1	10	29	12 38	147	54	36 0	1	0 28
501		9 6	2	10	34	52 15	139	16	38 4	2	0 30
502		9 2	1	10	35	22 25	137	19	31 7	1	0 32
503	36 Sextantis	6 0		10	38	8 91	86	47	51 7	1	0 22
504		8 0	3	10	38	47 07	144	50	21 1	3	0 28
505	η Argûs Var 1			10	39	47 45	148	58	13 4	3	0 23
506		9 0	1	10	41	25 52	146	23	11 9	1	0 20
507	53 Leonis *l*	6 0		10	42	6 36	78	44	10 8	11	0 26
508	4886 Taylor	7 0	1	10	42	47 47	137	2	0 2	1	0 17
509		8 1	3	10	45	4 13	141	45	4 6	3	0 31
510		8 4	1	10	46	2 79	141	39	51 2	1	0 32
511		9 0	1	10	47	52 85	150	5	33 6	1	0 30
512		8 9	1	10	47	59 18	129	29	12 6	1	0 26
513		9 0	1	10	50	16 20	144	30	30 0	1	0 22
514	4955 Taylor	6 8	1	10	50	40 47	147	19	36 3	1	0 28
515		9 0	1	10	52	15 94	143	36	15 0	1	0 23
516		8 6	2	10	52	52 74	139	32	46 5	2	0 31
517	59 Leonis *c*	5 5		10	53	41 73	83	10	6 9	2	0 14
518	61 Leonis *p*	5 5		10	54	53 58	91	45	12 8	1	0 07
519	50 Ursæ Majoris α	2 0		10	55	18 55	27	30	57 2	3	0 30
520		8 2	1	10	56	59 48	145	32	27 4	1	0 36
521		9 3	1	10	57	1 96	145	35	40 0	1	0 32
522	4576 Lacaille	7 9	2	10	57	48 85	129	34	38 1	2	0 27
523	63 Leonis χ	5 0		10	58	0 03	81	55	46 5	11	0 25
524		9 2	1	10	58	11 95	140	59	14 9	1	0 32
525	65 Leonis p^3	5 5		10	59	57 96	87	18	2~~0 9~~ 74	1	0 30

[274]

505 —η Argûs Var 1 —Irregularly variable from 1st to 9th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
491	43 Leonis	+ 3 1465	− 0 0068	− 0 001	+ 18 021	+ 0 194	+ 0 09	3544
492		+ 3 2?45	− 0 0110		+ 18 030	+ 0 198		
493		+ 2 5937	+ 0 0121		+ 18 033	+ 0 158		
494	4653 Taylor	+ 2 0173	+ 0 0129		+ 18 103	+ 0 119		
495	45 Leonis	+ 3 1759	− 0 0084	− 0 002	+ 18 193	+ 0 187	+ 0 01	3575
496		+ 2 2182	+ 0 0160		+ 18 247	+ 0 126		
497	30 Sextantis	+ 3 0726	− 0 0030	− 0 004	+ 18 ?97	+ 0 175	+ 0 03	3597
498		+ 3 2076	− 0 0102		+ 18 298	+ 0 183		
499	47 Leonis ρ	+ 3 1664	− 0 0080	0 000	+ 18 380	+ 0 176	+ 0 03	3609
500		+ 2 2493	+ 0 0181		+ 18 502	+ 0 119		
501		+ 2 5083	+ 0 0182		+ 18 687	+ 0 125		
502		+ 2 5186	+ 0 0177		+ 18 703	+ 0 126		
503	36 Sextantis	+ 3 0982	− 0 0040	− 0 006	+ 18 789	+ 0 150	+ 0 01	3684
504		+ 2 4134	+ 0 0207		+ 18 809	+ 0 114		
505	η Argûs Var 1	+ 2 3100	+ 0 0215	− 0 003	+ 18 839	+ 0 107	+ 0 01	3695
506		+ 2 3959	+ 0 0218		+ 18 888	+ 0 109		
507	53 Leonis *l*	+ 3 1608	− 0 0080	− 0 003	+ 18 908	+ 0 145	+ 0 02	3708
508	4866 Taylor	+ 2 3976	+ 0 0190		+ 18 928	+ 0 117		
509		+ 2 5274	+ 0 0218		+ 18 998	+ 0 110		
510		+ 2 5359	+ 0 0215		+ 19 020	+ 0 109		
511		+ 2 3526	+ 0 0246		+ 19 071	+ 0 098		
512		+ 2 7316	+ 0 0164		+ 19 073	+ 0 115		
513		+ 2 5104	+ 0 0238		+ 19 134	+ 0 102		
514	4955 Taylor	+ 2 4510	+ 0 0250		+ 19 145	+ 0 097		
515		+ 2 5443	+ 0 0239		+ 19 187	+ 0 100		
516		+ 2 6194	+ 0 0222		+ 19 201	+ 0 102		
517	59 Leonis *c*	+ 3 1178	− 0 0052	− 0 005	+ 19 221	+ 0 122	+ 0 06	3769
518	61 Leonis p^1	+ 3 0606	− 0 0007	0 000	+ 19 251	+ 0 117	+ 0 04	3775
519	50 Ursae Majoris α	+ 3 7869	− 0 0821	− 0 017	+ 19 261	+ 0 144	+ 0 09	3777
520		+ 2 5431	+ 0 0262		+ 19 302	+ 0 093		
521		+ 2 5424	+ 0 0263		+ 19 303	+ 0 092		
522	4576 Lacaille	+ 2 7758	+ 0 0179		+ 19 321	+ 0 100		
523	63 Leonis χ	+ 3 1226	− 0 0056	− 0 024	+ 19 326	+ 0 113	+ 0 08	3788
524		+ 2 6324	+ 0 0242		+ 19 330	+ 0 094		
525	65 Leonis p^3	+ 3 0383	− 0 0028	− 0 028	+ 19 371	+ 0 109	+ 0 08	3798

491 —495 —497 —525 —Proper Motions adopted from *Greenwich Catalogues* '
505 —Proper Motions from Mr Stone s list *Mem R A S* Vol 42
518 —Proper Motions from Mr Stone s list "*Mem R A S*' Vol 33

Mean Positions of Stars for 1864 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
526		9 7	1	11	0	36 53	147	13	43 7	1	0 33
527	21367 Lalande	8 0	1	11	3	18 75	78	5	47 8	1	0 37
528		8 2	1	11	4	20 19	105	14	31 1	1	0 37
529	5092 Taylor	8 8	1	11	5	18 86	143	49	7 7	1	0 33
530		9 9	2	11	5	41 10	83	50	24 8	2	0 22
531	69 Leonis p^5	5 5		11	6	47 83	89	19	48 4	1	0 14
532	68 Leonis δ	2 5		11	6	52 28	68	43	55 2	10	0 25
533		8 2	1	11	7	7 12	145	40	14 6	1	0 33
534		8 0	1	11	8	34 11	150	50	49 2	1	0 36
535		9 8	1	11	9	28 70	145	55	13 9	1	0 34
536	74 Leonis φ	4 7		11	9	44 90	92	54	32 0	4	0 20
537		9 8	1	11	10	31 90	141	8	35 7	1	0 32
538		9 0	1	11	11	8 16	127	38	22 5	1	0 32
539	12 Crateris δ	3 3		11	12	32 57	104	2	34 6	8	0 26
540		7 9	3	11	12	48 58	129	32	6 8	3	0 35
541	4726 Lacaille	7 6	2	11	16	5 21	145	51	29 0	2	0 33
542	5220 Taylor	8 1	3	11	19	0 51	131	55	30 8	3	0 34
543		8 6	1	11	19	24 95	129	30	57 8	1	0 32
544		9 5	1	11	21	41 86	128	22	47 4	1	0 24
545		8 1	4	11	22	7 66	129	4	15 7	4	0 30
546		9 0	1	11	22	48 14	145	53	44 9	1	0 32
547		9 0	1	11	23	11 85	142	52	33 9	1	0 32
548	87 Leonis e	5 5		11	23	21 88	92	15	13 9	1	0 37
549		9 1	2	11	24	35 16	146	8	57 4	2	0 34
550		9 1	2	11	26	15 02	143	51	15 2	2	0 33
551		10 2	1	11	26	39 88	23	17	32 2	1	0 32
552		8 5	1	11	29	50 97	149	15	40 3	1	0 32
553	91 Leonis υ	4 7		11	29	59 13	90	4	24 3	13	0 27
554		9 2	1	11	32	9 19	144	14	32 4	1	0 32
555		8 8	1	11	33	57 32	127	49	16 1	1	0 33
556		8 8	1	11	34	20 24	144	20	39 4	1	0 25
557		9 0	1	11	36	3 21	139	40	16 5	1	0 33
558	5384 Taylor	6 0	2	11	37	2 85	151	44	7 3	2	0 35
559		8 0	1	11	38	9 35	149	38	49 4	1	0 34
560		9 8	1	11	38	42 13	129	34	5 1	1	0 32

551 —Comparison star for Comet 2 1861

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
526		+ 2 5398	+ 0 0282		+ 19 385	+ 0 087		
527	21367 Lalande	+ 3 1411	− 0 0075		+ 19 445	+ 0 104		
528		+ 2 5097	+ 0 0313		+ 19 466	+ 0 080		
529	5092 Taylor	+ 2 6400	+ 0 0276		+ 19 487	+ 0 083		
530		+ 3 1059	− 0 0043		+ 19 494	+ 0 098		
531	69 Leonis p^5	+ 3 0757	− 0 0013	0 000	+ 19 517	+ 0 095	0 00	3832
532	68 Leonis δ	+ 3 1916	− 0 0132	+ 0 011	+ 19 519	+ 0 098	+ 0 14	3834
533		+ 2 6243	+ 0 0294		+ 19 524	+ 0 079		
534		+ 2 5387	+ 0 0441		+ 19 552	+ 0 071		
535		+ 2 6400	+ 0 0304		+ 19 570	+ 0 076		
536	74 Leonis φ	+ 3 0573	+ 0 0006	− 0 009	+ 19 575	+ 0 089	+ 0 04	3848
537		+ 2 7167	+ 0 0273		+ 19 590	+ 0 077		
538		+ 2 8539	+ 0 0186		+ 19 601	+ 0 080		
539	12 Crateris δ	+ 3 0032	+ 0 0064	− 0 009	+ 19 627	+ 0 081	− 0 18	3859
540		+ 2 8465	+ 0 0200		+ 19 631	+ 0 077		
541	4726 Lacaille	+ 2 6966	+ 0 0324		+ 19 688	+ 0 067		
542	5220 Taylor	+ 2 8585	+ 0 0225		+ 19 735	+ 0 066		
543		+ 2 8778	+ 0 0209		+ 19 741	+ 0 065		
544		+ 2 8959	+ 0 0205		+ 19 776	+ 0 061		
545		+ 2 8935	+ 0 0209		+ 19 781	+ 0 060		
546		+ 2 7530	+ 0 0344		+ 19 791	+ 0 056		
547		+ 2 7896	+ 0 0318		+ 19 797	+ 0 056		
548	87 Leonis e	+ 3 0637	+ 0 0011	− 0 001	+ 19 799	+ 0 062	+0 03	3916
549		+ 2 7652	+ 0 0352		+ 19 816	+ 0 053		
550		+ 2 8035	+ 0 0335		+ 19 838	+ 0 051		
551		+ 3 5222	− 0 0889		+ 19 843	+ 0 065		
552		+ 2 7772	+ 0 0406		+ 19 881	+ 0 044		
553	91 Leonis υ	+ 3 0718	+ 0 0003	− 0 003	+ 19 884	+ 0 049	− 0 03	3946
554		+ 2 8471	+ 0 0356		+ 19 907	+ 0 041		
555		+ 2 9544	+ 0 0219		+ 19 925	+ 0 040		
556		+ 2 8638	+ 0 0364		+ 19 929	+ 0 037		
557		+ 2 9078	+ 0 0320		+ 19 945	+ 0 035		
558	5384 Taylor	+ 2 8235	+ 0 0470		+ 19 954	+ 0 032		3976
559		+ 2 8548	+ 0 0444		+ 19 964	+ 0 030		
560		+ 2 9696	+ 0 0237		+ 19 969	+ 0 031		

Mean Positions of Stars for 1864 *January 1st*

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	m	s					
56 93	561		7 9	1	11	40	56 ~~86~~ 93	149	52	2 4	1	0 38
	562		8 7	1	11	41	9 03	126	30	25 6	1	0 26
	563		8 2	2	11	41	12 36	129	32	6 3	2	0 29
	564	94 Leonis β (*Deneb*)	2 0		11	42	7 21	70	40	5 0	11	0 30
	565		8 5	2	11	43	8 28	143	45	15 7	2	0 35
	566	5 Virginis β	3 5		11	43	36 67	87	28	8 6	4	0 22
	567	5427 Taylor	6 0	1	11	44	5 15	94	34	38 6	1	0 38
	568		8 7	1	11	44	44 16	129	2	40 7	1	0 33
	569	5433 Taylor	7 7	1	11	44	51 57	129	33	3 0	1	0 32
	570		9 3	1	11	45	51 40	142	31	0 6	1	0 34
	571	64 Ursæ Majoris γ	2 3		11	46	39 67	35	32	56 0	1	0 30
	572		8 7	2	11	49	56 96	128	5	29 6	2	0 26
	573		8 4	1	11	51	23 65	128	52	34 2	1	0 26
	574		9 3	1	11	51	36 57	144	12	54 1	1	0 32
	575		8 0		11	52	20 94	154	32	32 2	1	0 36
	576		9 7	2	11	53	50 17	129	35	50 1	2	0 35
	577		9 0	3	11	56	23 61	128	29	55 8	3	0 28
	578	5534 Taylor	8 0	1	11	56	49 55	143	57	19 9	1	0 33
	579	4995 Lacaille	7 8	1	11	56	54 06	142	44	26 8	1	0 32
	580	5535 Taylor	7 9	2	11	57	3 47	70	25	29 7	2	0 29
	581	89 R P L	6 3		11	57	51 22	3	39	33 6	3	0 49
	582		8 2	2	11	59	1 22	128	27	45 4	2	0 24
	583		8 5	2	11	59	44 33	144	16	11 2	2	0 35
	584		9 0	1	12	1	37 16	130	1	34 8	1	0 34
	585	5041 Lacaille	7 9	1	12	2	32 88	141	28	14 3	1	0 29
	586		9 0	1	12	2	37 25	141	5	39 5	1	0 34
	587	10 Virginis	6 0		12	2	43 10	87	20	18 4	1	0 30
	588	2 Corvi ε	3 0		12	3	8 08	111	51	47 5	8	0 33
	589		9 9	1	12	6	3 08	130	11	7 8	1	0 34
	590		8 2	1	12	6	12 47	138	27	32 0	1	0 27
	591	5613 Taylor	8 0	1	12	7	55 44	130	22	49 0	1	0 33
40 96	592	69 Ursæ Majoris δ	3 5		12	8	40 ~~98~~ 96	32	12	42 4	2	0 37
	593		8 8	1	12	8	50 14	144	20	13 0	1	0 33
	594	13 Virginis	6 3		12	11	42 07	90	1	51 3	2	0 22
31 24	595	5648 Taylor	6 9	3	12	12	31 ~~20~~ 24	152	5	57 5	3	0 34

581 —1850 Groombridge

573 — Double The s f and brighter star observed

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
561		+ 2 8808	+ 0 0458		+ 19 986	+ 0 026		
562		+ 2 9908	+ 0 0218		+ 19 987	+ 0 027		
563		+ 2 9817	+ 0 0240		+ 19 988	+ 0 027		
564	94 Leonis β (*Deneb*)	+ 3 1006	− 0 0074	− 0 036	+ 19 994	+ 0 025	+ 0 10	3995
565		+ 2 9379	+ 0 0382		+ 20 001	+ 0 022		
566	5 Virginis β	+ 3 0763	− 0 0003	+ 0 048	+ 20 004	+ 0 023	+ 0 28	4002
567	5427 Taylor	+ 3 0647	+ 0 0034		+ 20 007	+ 0 022		4006
568		+ 3 0000	+ 0 0241		+ 20 011	+ 0 020		
569	5433 Taylor	+ 2 9992	+ 0 0246		+ 20 012	+ 0 020		
570		+ 2 9646	+ 0 0373		+ 20 017	+ 0 017		
571	64 Ursæ Majoris γ	+ 3 1808	− 0 0433	+ 0 011	+ 20 022	+ 0 017	0 00	4017
572		+ 3 0261	+ 0 0241		+ 20 036	+ 0 010		
573		+ 3 0317	+ 0 0249		+ 20 041	+ 0 007		
574		+ 3 0042	+ 0 0410		+ 20 042	+ 0 007		
575		+ 2 9783	+ 0 0604		+ 20 044	+ 0 005		
576		+ 3 0423	+ 0 0258		+ 20 048	+ 0 003		
577		+ 3 0553	+ 0 0258		+ 20 053	− 0 002		
578	5534 Taylor	+ 3 0467	+ 0 0421		+ 20 053	− 0 003		
579	4995 Lacaille	+ 3 0483	+ 0 0404		+ 20 053	− 0 003		
580	5535 Taylor	+ 3 0782	− 0 0089		+ 20 054	− 0 003		
581	89 R P L	+ 3 2674	− 0 5247		+ 20 054	− 0 005		4070
582		+ 3 0675	+ 0 0255		+ 20 055	− 0 007		
583		+ 3 0699	+ 0 0434		+ 20 055	− 0 009		
584		+ 3 0800	+ 0 0273		+ 20 054	− 0 012		
585	5041 Lacaille	+ 3 0907	+ 0 0400		+ 20 054	− 0 014		
586		+ 3 0910	+ 0 0396		+ 20 054	− 0 015		
587	10 Virginis	+ 3 0714	+ 0 0007	− 0 001	+ 20 054	− 0 013	+ 0 21	4094
588	2 Corvi ε	+ 3 0793	+ 0 0142	− 0 005	+ 20 054	− 0 016	− 0 01	4097
589		+ 3 1019	+ 0 0280		+ 20 048	− 0 021		
590		+ 3 1129	+ 0 0369		+ 20 048	− 0·022		
591	5613 Taylor	+ 3 1114	+ 0 0284		+ 20 043	− 0 025		
592	69 Ursæ Majoris δ	+ 2 9917	− 0 0425	+ 0 015	+ 20 040	− 0 026	+ 0 04	4128
593		+ 3 1439	+ 0 0460		+ 20 040	− 0 027		
594	13 Virginis	+ 3 0721	+ 0 0026	0 000	+ 20 029	− 0 032	+ 0 04	4137
595	5648 Taylor	+ 3 2100	+ 0 0640		+ 20 024	− 0 035		

Mean Positions of Stars for 1864 *January 1st,*

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	m	s					
	596	15 Virginis η	3 7		12	12	56 91	89	54	38 9	6	0 32
	597		9 5	1	12	14	3 66	143	44	49 8	1	0 34
	598	5119 Lacaille	8 4	1	12	15	21 68	138	34	15 4	1	0 27
	599		8 0	1	12	16	46 01	147	9	46 4	1	0 37
	600		8 7	2	12	17	24 22	24	43	7 3	2	0 24
	601		9 8	1	12	18	39 10	143	30	8 0	1	0 34
	602		9 5		12	19	0 47	129	43	47 8	1	0 32
	603	α Crucis (1st)	2 3		12	19	3 52	152	20	42 4	2	0 34
658	604		8 0	2	12	21	6 84	145	42	19 0	2	0 37
	605		8 3	2	12	24	38 58	150	58	38 9	2	0 32
	606		7 5	1	12	25	56 04	28	2	1 0	1	0 33
	607	21 Virginis q	6 0	2	12	26	45 81	98	42	5 4	5	0 27
	608		8 0	1	12	27	4 41	38	0	26 8	1	0 37
	609	9 Corvi β	2 3		12	27	14 86	112	38	38 9	4	0 34
	610		9 2	1	12	27	49 34	140	55	32 3	1	0 34
11 17	611	T Ursæ Majoris Var 3	8 3	3	12	30	11 19	29	45	49 5	3	0 32
	612		9 2	1	12	30	50 84	142	19	41 5	1	0 39
	613	R Virginis Var 2	7 3	4	12	31	35 85	82	15	47 4	4	0 36
	614		9 8	2	12	32	8 58	29	14	20 1	2	0 33
	615	26 Virginis χ	6 0	1	12	32	13 76	97	14	48 0	4	0 28
	616		7 0	1	12	32	51 66	28	13	23 1	1	0 32
	617	5830 Taylor	7 5	1	12	34	26 89	144	0	51 4	1	0 36
	618	XII 592 W B E	8 0	3	12	36	1 30	93	17	48 6	3	0 29
	619	S Ursæ Majoris Var 2	9 7	2	12	37	58 32	28	9	42 2	2	0 32
	620		9 6	3	12	39	36 25	94	1	53 6	3	0 26
	621		7 9	1	12	40	49 04	141	52	54 0	1	0 37
	622		8 0	1	12	41	40 06	141	49	33 0	1	0 35
3 41	623		9 2	1	12	42	3 34	147	16	27 3	1	0 38
	624		8 7	1	12	42	47 38	142	51	56 9	1	0 36
	625		9 3	1	12	42	51 08	139	25	15 5	1	0 40
	626		8 3	1	12	43	17 33	129	7	50 7	1	0 36
	627		8 9	4	12	43	26 08	83	19	14 6	4	0 36
	628	U Virginis Var 3	9 3	3	12	44	11 78	83	42	20 5	3	0 34
	629	2922 Radcliffe	6 2	1	12	45	6 74	26	16	27 1	1	0 38
	630		9 7	3	12	45	10 12	83	19	6 9	3	0 35

600 —629 —Comparison stars for Comet 2 1861
611 —T Ursæ Majoris Var 3 —Period 255 days —Range 7th to 12th magnitude
613 —R Virginis Var 2 —Period 146 days —Range 6 5 to 11th magnitude
618 —620 —Comparison stars for Hestia in 1864
619 —S Ursæ Majoris Var 2 —Period 225 days —Range 7th to 12th magnitude
628 —U Virginis Var 3 —Period 207 days —Range 8th to 13 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
596	15 Virginis η	+ 3 0719	+ 0 0027	− 0 007	+ 20 023	− 0 035	+ 0 03	4145
597		+ 3 1838	+ 0 0464		+ 20 018	− 0 038		
598	5119 Lacaille	+ 3 1735	+ 0 0388		+ 20 010	− 0 040		
599		+ 3 2234	+ 0 0535		+ 20 001	− 0 044		
600		+ 2 8517	− 0 0523		+ 19 997	− 0 041		
601		+ 3 2190	+ 0 0464		+ 19 989	− 0 047		
602		+ 3 1641	+ 0 0292		+ 19 986	− 0 047		
603	α Crucis (1st)	+ 3 2837	+ 0 0680	− 0 006	+ 19 936	− 0 050	+ 0 01	4187
604		+ 3 2524	+ 0 0518		+ 19 970	− 0 053		
605		+ 3 3307	+ 0 0658		+ 19 940	− 0 061		
606		+ 2 7885	− 0 0420		+ 19 927	− 0 055		
607	21 Virginis q	+ 3 0960	+ 0 0080	− 0 009	+ 19 918	− 0 062	0 00	4230
608		+ 2 8705	− 0 0294		+ 19 916	− 0 058		
609	9 Corvi β	+ 3 1381	+ 0 0164	− 0 008	+ 19 914	− 0 064	+ 0 07	4234
610		+ 3 2715	+ 0 0447		+ 19 907	− 0 067		
611	T Ursæ Majoris Var 3	+ 2 7650	+ 0 0377		+ 19 881	− 0 062		
612		+ 3 3043	+ 0 0476		+ 19 873	− 0 074		
613	R Virginis Var 2	+ 3 0471	− 0 0003		+ 19 865	− 0 070		
614		+ 2 7382	− 0 0376		+ 19 858	− 0 065		
615	26 Virginis χ	+ 3 0959	+ 0 0075	− 0 006	+ 19 857	− 0 072	+ 0 04	4257
616		+ 2 7161	− 0 0384		+ 19 850	− 0 066		
617	5830 Taylor	+ 3 3478	+ 0 0518		+ 19 829	− 0 082		4266
618	XII 592 W B E	+ 3 0841	+ 0 0056		+ 19 808	− 0 080		
619	S Ursæ Majoris Var 2	+ 2 6602	− 0 0360		+ 19 781	− 0 073		
620		+ 3 0883	+ 0 0062		+ 19 756	− 0 086		
621		+ 3 3740	+ 0 0490		+ 19 738	− 0 095		
622		+ 3 3795	+ 0 0490		+ 19 725	− 0 097		
623		+ 3 4517	+ 0 0611		+ 19 718	− 0 100		
624		+ 3 3998	+ 0 0512		+ 19 706	− 0 100		
625		+ 3 3622	+ 0 0449		+ 19 705	− 0 099		
626		+ 3 2763	+ 0 0313		+ 19 699	− 0 098		
627		+ 3 0426	+ 0 0009		+ 19 696	− 0 090		
628	U Virginis Var 3	+ 3 0438	+ 0 0012		+ 19 683	− 0 093		
629	2922 Radcliffe	+ 2 5424	− 0 0344		+ 19 668	− 0 080		
630		+ 3 0414	+ 0 0010		+ 19 667	− 0 095		

603 —Proper Motions adopted from *Stone's Catalogue*
615 —Proper Motions from Mr Stone's list *Mem R A S* Vol 33

Mean Positions of Stars for 1864 *January* 1st,

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year	
					h	m	s						
	631	40 Virginis ψ	5 3		12	47	16 98	98	47	58 3	2	0 30	
	632	99 R P L	5 6		12	48	9 91	5	50	52 8	1	0 38	
	633		7 8	1	12	49	23 85	145	34	11 3	1	0 37	
	634	12 Canum Venaticorum	3 0		12	49	39 61	50	56	48 11	11	0 36	
	635	5974 Taylor	8 7	1	12	51	54 65	143	38	34 3	1	0 41	
16 49	636		8 8	1	12	53	16 4~~8~~9	143	40	22 3	1	0 38	
	637		9 2	1	12	54	37 89	139	18	22 8	1	0 39	
	638		10 3	2	12	56	11 01	113	12	31 9	2	0 31	
	639	5381 Lacaille	8 8	1	12	57	7 84	129	57	6 1	1	0 40	
6 23	640		9 1	2	12	58	6 2~~4~~3	124	28	41 6	2	0 37	
	641	50 Virginis	6 0	2	13	2	38 28	99	36	11 3	3	0 33	
	642	51 Virginis θ	4 8		13	2	54 57	97	48	44 1	11	0 36	
	643		9 0	1	13	4	32 13	138	10	32 3	1	0 41	
	644	W Virginis Var 1	8 4	3	13	6	54 18	105	49	54 7	1	0 29	
45 48	645		8 1	2	13	9	45 4~~7~~8	129	56	15 7	2	0 37	
	646	58 Virginis	6 7		13	10	19 73	99	49	12 7	1	0 28	
	647	101 R P L	7 5		13	10	26 11	1	37	17 6	3	0 40	
12 59	648	6129 Taylor	7 4	2	13	12	12 9~~5~~2	130	28	30 4	2	0 38	
	649		7 8	1	13	12	53 10	122	56	34 2	1	0 33	
	650	5503 Lacaille	7 8	1	13	14	8 92	125	23	51 4	2	0 35	
	651	13563 O A N	8 5	1	13	15	24 40	27	53	14 0	1	0 41	
	652		8 8	1	13	15	47 75	145	12	51 0	1	0 39	
	653	67 Virginis α (*Spica*)	1 0		13	18	1 85	100	27	1 9	14	0 35	
	654	V Virginis Var 7	9 3	1	13	20	46 90	92	27	59 2	1	0 20	
	655	R Hydræ Var 1	5 5	1	13	22	17 30	112	34	38 9	1	0 37	
	656		10 8	1	13	23	18 12	88	38	~~7 3~~	1	0 32	12 5
	657	6257 Taylor	8 5	1	13	25	36 07	148	48	21 6	1	0 42	
	658	76 Virginis h	6 3		13	25	48 49	99	27	47 4	3	0 35	
	659	S Virginis Var 6	7 0	2	13	25	53 98	96	29	41 9	2	0 31	
	660		8 8	1	13	26	37 79	131	35	11 9	1	0 42	
	661	79 Virginis 3	4 0		13	27	45 87	89	53	58 7	15	0 36	
	662		9 3	2	13	36	31 31	144	38	18 5	2	0 41	
	663	6363 Taylor	8 8	1	13	36	38 28	147	33	27 4	1	0 40	
	664		9 6	2	13	37	30 37	123	48	3 4	2	0 37	
31 25	665		7 7	1	13	37	31 ~~19~~ 25	128	40	16 9	1	0 38	

632 —1940 Groombridge
644 —W Virginis Var I—Irregularly variable from 7th to 10 5 magnitude
647 —2006 Groombridge
651 —Comparison star for Comet 2 1861
654 —V Virginis Var 7 —Period 251 days —Range 7th to below 13th magnitude
655 —R Hydræ Var 1 —Period about 15 months —Range 4th to 10th magnitude
656 —Observed by mistake for Europa
659 —S Virginis Var 6.—Period 374 days.—Range, 6th to 12th magnitude.

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
631	40 Virginis ψ	+ 3 1145	+ 0 0092	− 0 002	+ 19 630	− 0 101	+ 0 04	4330
632	99 R P L	+ 0 3486	+ 0 2263	− 0 017	+ 19 613	− 0 018	− 0 04	4342
633		+ 3 4892	+ 0 0586		+ 19 591	− 0 117		
634	12 Can Venaticorum	+ 2 8388	− 0 0152	− 0 023	+ 19 587	− 0 098	− 0 06	4346
635	5974 Taylor	+ 3 4799	+ 0 0546		+ 19 542	− 0 122		
636		+ 3 4910	+ 0 0549		+ 19 515	− 0 124		
637		+ 3 4392	+ 0 0465		+ 19 488	− 0 127		
638		+ 3 2112	+ 0 0184		+ 19 455	− 0 122		
639	5381 Lacaille	+ 3 3484	+ 0 0335		+ 19 436	− 0 128		
640		+ 3 3023	+ 0 0278		+ 19 413	− 0 129		
641	50 Virginis	+ 3 1331	+ 0 0104	− 0 001	+ 19 310	− 0 131	+ 0 02	4397
642	51 Virginis θ	+ 3 1025	+ 0 0078	− 0 004	+ 19 305	− 0 132	+ 0 04	4401
643		+ 3 4873	+ 0 0459		+ 19 265	− 0 150		
644	W Virginis Var 1	+ 3 1812	+ 0 0142		+ 19 206	− 0 142		
645		+ 3 4075	+ 0 0346		+ 19 133	− 0 157		
646	58 Virginis	+ 3 1421	+ 0 0108	− 0 007	+ 19 118	− 0 147	− 0 01	4442
647	101 R P L	− 11 2142	+ 8 3584		+ 19 115	+ 0 487		
648	6129 Taylor	+ 3 4257	+ 0 0353		+ 19 067	− 0 163		
649		+ 3 3430	+ 0 0273		+ 19 049	− 0 161		
650	5503 Lacaille	+ 3 3742	+ 0 0298		+ 19 014	− 0 164		
651	13563 O A N	+ 2 2557	− 0 0189		+ 18 980	− 0 114		
652		+ 3 6971	+ 0 0629		+ 18 968	− 0 183		
653	67 Virginis α (*Spica*)	+ 3 1543	+ 0 0116	− 0 005	+ 18 904	− 0 163	+ 0 04	4480
654	V Virginis Var 7	+ 3 0919	+ 0 0073		+ 18 822	− 0 164		
655	R Hydræ Var 1	+ 3 2674	+ 0 0192	+ 0 002	+ 18 777	− 0 176	− 0 01	4501
656		+ 3 0607	+ 0 0055		+ 18 746	− 0 267		
657	6257 Taylor	+ 3 8778	+ 0 0761		+ 18 672	− 0 215		
658	76 Virginis *h*	+ 3 1536	+ 0 0113	− 0 004	+ 18 666	− 0 176	+ 0 02	4521
659	S Virginis Var 6	+ 3 1278	+ 0 0096		+ 18 663	− 0 175		
660		+ 3 5099	+ 0 0379		+ 18 639	− 0 197		
661	79 Virginis 3	+ 3 0711	+ 0 0064	− 0 019	+ 18 603	− 0 176	− 0 06	4532
662		+ 3 8424	+ 0 0642		+ 18 302	− 0 237		
663	6363 Taylor	+ 3 9329	+ 0 0733		+ 18 298	− 0 243		
664		+ 3 4415	+ 0 0292		+ 18 267	− 0 215		
665		+ 3 5138	+ 0 0346		+ 18 267	− 0 220		

641 —646 —658 —Proper Motions from Mr Stone s list *Mem R A S* Vol 33
655 —Proper Motions adopted from " *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January* 1*st*,

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	*m*	*s*					
	666		8 6	2	13	38	13 86	122	47	4 2	2	0 36
33 73	667		8 2	2	13	38	33 97	152	45	59 9	2	0 38
	668		9 2	1	13	40	30 30	129	24	0 6	1	0 34
	669	85 Ursæ Majoris η	2 3		13	42	10 62	40	0	25 4	3	0 36
	670		8 4	2	13	43	11 39	123	6	31 9	2	0 36
	671		8 2	1	13	43	24 14	123	13	4 9	1	0 38
	672		9 0		13	44	15 25	127	56	40 9	1	0 41
	673		9 0	1	13	45	23 48	128	23	4 5	1	0 41
	674		8 5	1	13	45	42 40	122	54	31 3	2	0 38
	675	8 Bootis η	3 0		13	48	12 51	70	55	10 5	13	0 37
	676		8 3	2	13	50	11 62	123	43	44 0	2	0 32
	677		8 0	1	13	50	40 64	123	43	55 5	1	0 30
	678		8 4	1	13	53	7 76	135	10	51 4	1	0 36
	679	93 Virginis τ	4 5		13	54	43 58	87	47	45 3	13	0 38
4 99	680	5794 Lacaille	6 3	1	13	57	4 80	152	47	34 6	1	0 39
	681	6585 Taylor	7 7	1	14	1	22 44	124	14	3 6	1	0 34
	682		9 0	2	14	2	25 96	129	4	15 2	2	0 41
	683	U Bootis Var 4	9 5	3	14	4	21 64	79	32	32 2	3	0 38
	684	6616 Taylor	5 7	1	14	5	30 32	146	26	48 4	1	0 37
38 63	685	98 Virginis κ	4 3		14	5	38 62	99	38	20 2	2	0 38
	686		8 2	1	14	6	8 79	135	1	18 1	1	0 36
	687	16 Bootis α (*Arcturus*)	1 0		14	9	27 55	70	6	30 0	6	0 42
	688	100 Virginis λ	5 0		14	11	45 19	102	44	35 8	5	0 38
	689		9 6	1	14	12	30 81	136	49	53 7	1	0 31
	690		8 9	2	14	14	34 88	122	35	44 6	2	0 44
	691		8 7	1	14	15	19 50	122	11	35 0	1	0 37
	692	6709 Taylor	7 0	1	14	15	58 65	119	3	19 6	1	0 42
	693	2 Libræ	6 7		14	16	6 76	101	5	28 8	1	0 31
	694	5926 Lacaille	8 3	3	14	16	40 24	118	59	58 2	3	0 42
	695	6721 Taylor	7 0		14	17	22 38	101	3	1 7	1	0 30
	696		10 0	1	14	17	24 96	123	13	23 0	1	0 42
	697	6740 Taylor	7 5	3	14	19	5 08	133	42	56 0	3	0 43
	698		9 3	1	14	21	57 61	122	33	58 6	1	0 41
	699	5962 Lacaille	7 5	1	14	22	42 28	129	46	44 0	1	0 32
	700		8 0		14	23	42 53	136	54	23 6	1	0 46

683 —U Bootis Var 4 —Period uncertain —Range 8 7 to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
666		+ 3 1299	+ 0 0283		+ 18 240	− 0 216		
667		+ 4 1552	+ 0 0964		+ 18 2[illegible]9	− 0 261		
668		+ 3 5384	+ 0 0356		+ 18 158	− 0 228		
669	85 Ursæ Majoris η	+ 2 3850	− 0 0103	− 0 012	+ 18 095	− 0 159	+ 0 03	4607
670		+ 3 4517	+ 0 0287		+ 18 055	− 0 227		
671		+ 3 4538	+ 0 0288		+ 18 048	− 0 228		
672		+ 3 5301	+ 0 0341		+ 18 016	− 0 235		
673		+ 3 5421	+ 0 0346		+ 17 972	− 0 238		
674		+ 3 4571	+ 0 0286		+ 17 960	− 0 233		
675	8 Bootis η	+ 2 8617	− 0 0006	− 0 004	+ 17 861	− 0 199	+ 0 36	4648
676		+ 3 4849	+ 0 0295		+ 17 781	− 0 243		
677		+ 3 4866	+ 0 0295		+ 17 762	− 0 244		
678		+ 3 7208	+ 0 0453		+ 17 661	− 0 265		
679	93 Virginis τ	+ 3 0475	+ 0 0064	+ 0 001	+ 17 594	− 0 211	+ 0 07	4672
680	5794 Lacaille	+ 4 3436	+ 0 0996		+ 17 494	− 0 318		
681	6585 Taylor	+ 3 5317	+ 0 0302		+ 17 307	− 0 268		
682		+ 3 6249	+ 0 0357		+ 17 260	− 0 276		
683	U Bootis Var 4	+ 2 9447	+ 0 0035		+ 17 174	− 0 229		
684	6616 Taylor	+ 4 1217	+ 0 0686		+ 17 122	− 0 320		4709
685	98 Virginis κ	+ 3 1905	+ 0 0122	+ 0 001	+ 17 117	− 0 250	− 0 02	4716
686		+ 3 7719	+ 0 0445		+ 17 093	− 0 295		
687	16 Bootis α (*Arcturus*)	+ 2 8132	+ 0 0004	− 0 079	+ 16 941	− 0 227	+ 1 93	4729
688	100 Virginis λ	+ 3 2365	+ 0 0140	− 0 002	+ 16 832	− 0 264	− 0 02	4743
689		+ 3 8509	+ 0 0477		+ 16 795	− 0 314		
690		+ 3 5458	+ 0 0284		+ 16 696	− 0 293		
691		+ 3 5408	+ 0 0281		+ 16 659	− 0 291		
692	6709 Taylor	+ 3 4875	+ 0 0252		+ 16 627	− 0 292		
693	2 Libræ	+ 3 2188	+ 0 0132	− 0 004	+ 16 621	− 0 270	+ 0 09	4765
694	5926 Lacaille	+ 3 4882	+ 0 0252		+ 16 594	− 0 293		
695	6721 Taylor	+ 3 2194	+ 0 0132		+ 16 559	− 0 272		4772
696		+ 3 5662	+ 0 0292		+ 16 557	− 0 301		
697	6740 Taylor	+ 3 8011	+ 0 0423		+ 16 474	− 0 323		
698		+ 3 5678	+ 0 0285		+ 16 329	− 0 309		
699	5962 Lacaille	+ 3 7213	+ 0 0365		+ 16 291	− 0 324		
700		+ 3 9106	+ 0 0476		+ 16 240	− 0 342		

Mean Positions of Stars for 1864 *January* 1st

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	m	s					
	701		8 4	2	14	24	12 75	123	48	35 8	2	0 44
	702	14634 O A N	7 0	1	14	25	51 40	20	8	24 1	1	0 46
58 05	703	25 Bootis ρ	4 0		14	25	58 06 5	50	1	49 2	8	0 41
	704	14652 O A N	8 5	1	14	27	1 13	20	6	57 6	1	0 46
	705	R Camelopardi Var 1	10 8	1	14	28	9 31	5	33	16 5	1	0 34
	706		8 0	1	14	29	26 79	124	55	30 2	1	0 39
	707	α Centauri (2nd)	1 0		14	30	23 07	150	16	21 0	2	0 44
	708		8 3	1	14	32	42 12	121	44	17 9	1	0 39
	709	α Lupi	5 8	1	14	32	54 02	136	46	6 9	1	0 42
	710	36 Bootis ε (Mirac)	2 3		14	39	2 84	62	21	3 7	11	0 44
20 44	711		7 7	2	14	39	20 ~~40~~ 44	124	9	35 1	2	0 40
	712		8 8	2	14	42	21 84	129	6	50 7	2	0 36
	713	9 Libræ α	2 3		14	43	21 52	105	28	28 0	12	0 43
	714	β Ursæ Minoris Var 1	2 0		14	51	8 11	15	17	19 1	1	0 41
	715		9 1	1	14	51	23 24	39	19	38 3	1	0 39
	716		9 0	1	14	51	35 46	123	12	48 3	1	0 49
52 26	717	6991 Taylor	6 4	1	14	51	52 ~~37~~ 26	39	48	49 7	1	0 39
	718	15004 O A N	7 5	1	14	53	52 88	39	21	3 3	1	0 39
	719	15023 O A N	7 5	1	14	55	39 47	27	47	28 9	1	0 46
	720	43 Bootis ψ	5 0		14	58	37 08	62	31	14 3	8	0 44
	721	7079 Taylor	6 7	1	15	3	19 98	123	7	14 8	1	0 49
	722	15138 O A N	9 2	1	15	4	7 39	43	0	6 3	1	0 40
28 28	723	24 Libræ ι^1	5 3		15	4	28 28	109	16	20 1	2	0 38
44 18	724	111 R P L	6 9		15	5	~~45 19~~ 44 18	5	31	23 7	1	0 39
	725	27 Libræ β	2 0		15	9	41 44	98	51	43 6	7	0 45
	726		9 5	1	15	14	12 39	123	7	30 8	1	0 40
	727		8 7	3	15	20	23 57	130	8	34 7	3	0 48
	728	32 Libræ ξ^1	4 0		15	20	35 48	106	14	22 2	1	0 46
	729		7 5	1	15	21	40 06	129	25	58 8	1	0 40
	730	XV 395 W B E	8 9	2	15	21	58 56	101	15	30 5	2	0 54
	731	114 R P L	6 9		15	22	29 01	2	14	59 0	1	0 97
	732	XV 429 W B E	9 4	2	15	24	2 57	101	28	30 0	2	0 56
	733	7240 Taylor	7 5	1	15	24	24 18	130	1	28 8	1	0 36
	734	3394 Radcliffe	8 0	1	15	25	3 61	41	49	6 2	1	0 46
	735	38 Libræ γ	4 3		15	27	55 27	104	20	0 1	4	0 38

702 —704 —719 —734 — Comparison stars for Comet 2 1862
705 —R Camelopardi Var 1 —Period 266 days —Range 8th to 12th magnitude
714 —β Ursæ Minoris Var 1 —(*Kochab*)—Supposed to vary irregularly from 2nd to 2 5 magnitude
715 —717 —718 —722 —Comparison stars for Comet 2 1861
724 —2213 Groombridge
730 —732 —Comparison stars for Sappho in 1864
731 —2283 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
701		+ 3 5990	+ 0 0297		+ 16 214	− 0 316		
702	14634 O A N	+ 0 9053	+ 0 0359		+ 16 199	− 0 085		
703	25 Bootis ρ	+ 2 5948	− 0 0015	− 0 008	+ 16 124	− 0 233	− 0 14	4808
704	14652 O A N	+ 0 8876	+ 0 0366		+ 16 068	− 0 084		
705	R Camelopardi Var 1	− 5 2092	+ 1 0886		+ 16 008	− 0 451		
706		+ 2 6386	+ 0 0306		+ 15 941	− 0 329		
707	α Centauri (2*nd*)	+ 4 4996	+ 0 0878	− 0 476	+ 15 894	− 0 410	− 0 81	4832
708		+ 3 5833	+ 0 0274		+ 15 766	− 0 330		
709	α Lupi	+ 3 9531	+ 0 0472		+ 15 755	− 0 364		4839
710	36 Bootis ε (*Mirac*)	+ 2 6240	− 0 0001	− 0 005	+ 15 417	− 0 252	− 0 01	4876
711		+ 3 6532	+ 0 0294		+ 15 400	− 0 349		
712		+ 3 7796	+ 0 0350		+ 15 227	− 0 366		
713	9 Libræ α	+ 3 3140	+ 0 0154	− 0 007	+ 15 173	− 0 324	+ 0 06	4895
714	β Ursæ Minoris Var 1	− 0 2500	+ 0 1022	− 0 005	+ 14 719	+ 0 018	+ 0 08	4936
715		+ 1 9623	+ 0 0014		+ 14 704	− 0 201		
716		+ 3 6679	+ 0 0280		+ 14 692	− 0 370		
717	6991 Taylor	+ 1 9789	+ 0 0013		+ 14 675	− 0 203		4937
718	15004 O A N	+ 1 9503	+ 0 0017		+ 14 554	− 0 202		
719	15023 O A N	+ 1 8126	+ 0 0151		+ 14 447	− 0 139		
720	43 Bootis ψ	+ 2 5838	+ 0 0010	− 0 013	+ 14 262	− 0 231	0 00	4969
721	7079 Taylor	+ 3 6978	+ 0 0273		+ 13 974	− 0 393		
722	15138 O A N	+ 2 0403	+ 0 0015		+ 13 924	− 0 220		
723	24 Libræ ι¹	+ 3 4090	+ 0 0171	− 0 002	+ 13 902	− 0 364	+ 0 04	4995
724	111 R P I	− 6 9459	+ 1 1880		+ 13 821	+ 0 728		5022
725	27 Libræ β	+ 3 2258	+ 0 0117	− 0 009	+ 13 569	− 0 353	+ 0 01	5034
726		+ 3 7260	+ 0 0264		+ 13 275	− 0 414		
727		+ 3 9370	+ 0 0332		+ 12 865	− 0 447		
728	32 Libræ ο¹	+ 3 3711	+ 0 0148	+ 0 002	+ 12 852	− 0 384	+ 0 05	5089
729		+ 3 9195	+ 0 0322		+ 12 779	− 0 445		
730	XV 395 W B E	+ 3 2775	+ 0 0124		+ 12 758	− 0 374		
731	114 R I L	− 23 2282	+ 7 7947		+ 12 724	+ 2 614		5140
732	XV 429 W B E	+ 3 2831	+ 0 0125		+ 12 619	− 0 377		
733	7240 Taylor	+ 3 9460	+ 0 0325		+ 12 594	− 0 453		
734	3394 Radcliffe	+ 1 9064	+ 0 0037		+ 12 549	− 0 222		
735	38 Libræ γ	+ 3 3413	+ 0 0136	+ 0 002	+ 12 352	− 0 389	− 0 02	5134

707 —Proper Motions adopted from *Stone s Catalogue*
728 —Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January 1st,*

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	m	s					
	736	5 Cor Bor α (*Alpheta*)	2 0		15	28	55 81	62	49	33 6	5	0 49
	737		9 8	1	15	29	12 53	119	40	28 0	1	0 42
	738		9 0	1	15	30	9 95	129	33	27 5	1	0 40
	739	28530 Lalande	9 5	1	15	31	50 66	47	25	19 7	1	0 46
	740	XV 645 W B E	8 2	2	15	34	22 58	102	19	15 9	3	0 48
	741	XV 675 W B E	9 2	3	15	35	56 43	102	41	26 6	3	0 48
	742	24 Serpentis α	2 3		15	37	34 18	83	8	39 1	7	0 48
	743		9 5	2	15	41	26 72	62	3	16 3	2	0 40
	744		10 0	1	15	42	32 18	61	46	38 9	1	0 39
	745	R Serpentis Var 2	7 4	1	15	44	25 44	74	27	6 8	1	0 50
	746	3462 Radcliffe	8 0	1	15	46	20 61	47	1	30 6	1	0 46
	747	28970 Lalande	7 8	1	15	47	57 96	70	49	3 7	1	0 56
	748	28980 Lalande	6 1	2	15	48	54 37	104	25	44 7	3	0 48
	749	16 Ursæ Minoris 3	4 0		15	48	59 55	11	47	19 8	2	0 49
	750		9 0	2	15	49	24 72	103	59	1 0	3	0 49
	751	29054 Lalande	8 6	3	15	50	30 67	104	3	3› ɒ	3	0 42
3195	752	8 Scorpii β	2 0		15	57	31 94	109	25	48 7	7	0 45
	753		8 3	3	15	59	58 54	105	16	22 1	3	0 43
	754	15281 O A S	9 3	3	16	0	58 47	105	43	43 2	3	0 41
	755	14 Scorpii υ	4 3		16	4	5 68	109	6	15 7	2	0 35
	756	116 R P L	6 9		16	4	43 76	4	18	46 2	1	0 01
	757	15412 O A S	9 3	3	16	6	18 59	106	3	7 8	3	0 42
	758	15418 O A S	8 7	3	16	6	30 91	106	11	31 1	3	0 44
	759	1 Ophiuchi δ	3 0		16	7	13 22	93	20	30 5	5	0 50
	760	15544 O A S	8 7	3	16	12	46 73	106	45	6 3	3	0 41
	761	20 Scorpii σ	3 3		16	12	55 52	115	15	47 4	3	0 41
	762	15552 O A S	9 2	1	16	13	13 89	107	22	1 0	1	0 50
	763		8 9	1	16	15	46 22	128	7	41 2	1	0 46
	764	21 Scorpii α (*Antares*)	1 3		16	21	4 32	116	7	36 9	10	0 47
	765	30 Herculis g Var 5	5 5	1	16	24	10 48	47	49	3 4	1	0 46
	766	13 Ophiuchi 3	3 3		16	29	40 28	100	17	19 7	1	0 54
	767	5784 Brisbane	9 5	1	16	30	54 60	150	39	26 0	1	0 40
	768	40 Herculis ɔ	2 7		16	36	9 60	58	8	57 5	7	0 52
53 38	769		10 0	1	16	44	~~52 58~~	75	16	41 4	1	0 42
	770	27 Ophiuchi κ	3 7		16	51	13 82	80	24	40 0	7	0 56

57 — ~~739~~ —747 —Comparison stars for Comet 2 1862
740 —741 —748 — 750 —751 —753 —754 —757 —758 —760 —Comparison stars for Sappho in 1864
745 —R Serpentis Var 2 —Period 358 days —Range 6th to 11th magnitude
756 — 2423 Carrington
765 —30 Herculis g Var 5 —Changes irregularly from 5th to 6 3 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension Annual Precession	Secular Variation	Proper Motion	In Polar Distance Annual Precession	Secular Variation	Proper Motion	Number in B A C
		s	s	s				
736	5 Coronæ Borealis α	+ 2 5294	+ 0 0023	+ 0 009	+ 12 283	− 0 297	+ 0 07	5143
737		+ 3 6749	+ 0 0224		+ 12 262	− 0 429		
738		+ 3 9487	+ 0 0314		+ 12 197	− 0 463		
739	28530 Lalande	+ 2 0914	+ 0 0025		+ 12 080	− 0 249		
740	XV 645 W B E	+ 3 3071	+ 0 0125		+ 11 903	− 0 393		
741	XV 675 W B E	+ 3 3156	+ 0 0126		+ 11 792	− 0 396		
742	24 Serpentis α	+ 2 9413	+ 0 0062	+ 0 009	+ 11 677	− 0 354	− 0 05	5196
743		+ 2 4886	+ 0 0027		+ 11 399	− 0 304		
744		+ 2 4795	+ 0 0027		+ 11 320	− 0 304		
745	R Serpentis Var 2	+ 2 7634	+ 0 0043		+ 11 183	− 0 340		
746	3462 Radcliffe	+ 2 0323	+ 0 0033		+ 11 044	− 0 252		
747	28970 Lalande	+ 2 6821	+ 0 0039		+ 10 925	− 0 333		
748	28980 Lalande	+ 3 3614	+ 0 0127		+ 10 856	− 0 417		
749	16 Ursæ Minoris 3	− 2 3157	+ 0 2043	+ 0 029	+ 10 850	+ 0 279	+ 0 08	5285
750		+ 3 3524	+ 0 0125		+ 10 819	− 0 417		
751	29054 Lalande	+ 3 3549	+ 0 0125		+ 10 738	− 0 418		
752	8 Scorpii β¹	+ 3 4778	+ 0 0142	− 0 002	+ 10 214	− 0 441	+ 0 02	5329
753		+ 3 3888	+ 0 0123		+ 10 029	− 0 432		
754	15281 O A S	+ 3 3990	+ 0 0124		+ 9 953	− 0 435		
755	14 Scorpii ν	+ 3 4772	+ 0 0136	− 0 002	+ 9 715	− 0 448	+ 0 03	5382
756	116 R P L	− 12 4940	+ 1 7618		+ 9 667	+ 1 593		
757	15412 O A S	+ 3 4104	+ 0 0122		+ 9 545	− 0 442		
758	15418 O A S	+ 3 4135	+ 0 0123		+ 9 529	− 0 442		
759	1 Ophiuchi δ	+ 3 1408	+ 0 0081	− 0 006	+ 9 476	− 0 408	+ 0 13	5414
760	15544 O A S	+ 3 4318	+ 0 0119		+ 9 044	− 0 451		
761	20 Scorpii σ	+ 3 6354	+ 0 0156	− 0 003	+ 9 033	− 0 478	− 0 01	5447
762	15552 O A S	+ 3 4457	+ 0 0121		+ 9 009	− 0 453		
763		+ 4 0148	+ 0 0233		+ 8 810	− 0 530		
764	21 Scorpii α (*Antares*)	+ 3 6676	+ 0 0150	− 0 001	+ 8 391	− 0 491	+ 0 03	5498
765	30 Herculis Var 5	+ 1 9649	+ 0 0042	+ 0 005	+ 8 144	− 0 265	− 0 07	5528
766	13 Ophiuchi 3	+ 3 2962	+ 0 0088	+ 0 001	+ 7 701	− 0 447	− 0 03	5548
767	5784 Brisbane	+ 5 2731	+ 0 0545		+ 7 601	− 0 715		5554
768	40 Herculis 3	+ 2 2963	+ 0 0033	− 0 034	+ 7 175	− 0 316	− 0 45	5604
769		+ 2 7395	+ 0 0039		+ 6 457	− 0 381		
770	27 Ophiuchi κ	+ 2 8562	+ 0 0044	− 0 023	+ 5 928	− 0 402	− 0 02	5708

749 —766 —Proper Motions adopted from *Greenwich Catalogue*
770 —Proper Motion adopted from *Stone s Catalogue,'*

Mean Positions of Stars for 1864 *January* 1st,

	Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year	
	771	16232 O A S	9 8	1	16	53	57 53	110	14	43 5	1	0 56	
	772	16233 O A S	8 0	1	16	53	58 62	110	23	35 0	1	0 53	
16 75 — —	773		7 7	1	16	55	~~15 87~~	109	56	33 8	1	0 42	
	774	22 Ursæ Minoris ε	4 0		17	0	1 41	7	44	41 4	6	0 55	
34 89	775	35 Ophiuchi η	2 3		17	2	34 8~~7~~ 8	105	33	10 3	2	0 42	
	776		9 0	1	17	5	44 18	130	50	23 7	1	0 56	
	777	64 Herculis α Var 1	3 0		17	8	26 77	75	27	8 1	8	0 55	
	778		8 2	1	17	9	1 79	124	4	16 2	1	0 19	
[58 18]	779		9 8	1	17	11	8 18 ~~57 45~~	130	27	39 3	1	0 56	
21 25	780	8017 Taylor	6 7	1	17	13	21 2~~3~~5	114	45	54 6	3	0 49	
	781	42 Ophiuchi θ	3 3		17	13	39 53	114	51	36 4	5	0 56	
	782	44 Ophiuchi b	5 0	1	17	18	3 97	114	2	48 4	1	0 62	
	783	δ Aræ	6 7	1	17	18	49 67	150	33	55 7	2	0 48	
	784		8 3	1	17	21	22 44	130	32	55 8	1	0 56	
	785		8 4	1	17	21	22 60	130	50	57 0	1	0 62	
	786		8 7	1	17	28	25 03	125	14	39 7	1	0 53	
	787	55 Ophiuchi α	2 0		17	28	37 24	77	20	18 4	5	0 55	
	788		8 9	1	17	29	22 89	130	56	24 1	1	0 56	
	789		9 3	1	17	34	31 16	126	15	0 4	1	0 56	
	790		9 8	1	17	39	16 94	127	17	24 4	1	0 56	
	791		8 5	1	17	39	43 84	127	14	36 4	1	0 51	
	792	86 Herculis μ	3 8		17	41	8 20	62	11	52 4	2	0 56	
	793	31 Draconis ψ^1 (1st)	6 5	1	17	44	22 18	17	47	6 9	1	0 46	
	794		8 9	1	17	45	2 69	128	47	39 5	1	0 60	
	795	7504 Lacaille	7 0	1	17	48	32 17	129	~~7~~	48 6	1	0 60	— 6
	796		8 7	3	17	50	25 20	130	50	22 6	3	0 57	
	797	7518 Lacaille	7 0	1	17	52	43 11	149	12	14 6	1	0 62	
	798	33 Draconis γ (*Etanin*)	2 5		17	53	26 91	38	29	39 1	1	0 61	
	799	8355 Taylor	5 5	1	17	56	59 84	133	25	39 0	1	0 60	
	800		9 2	2	18	1	13 76	131	43	35 0	2	0 58	
	801		9 0	1	18	2	49 27	131	~~40~~	29 2	1	0 56	— 44
	802	T Herculis Var 4	8 2	1	18	3	57 37	~~53~~	~~59~~	~~52 7~~	1	0 62	— 59 0 44
	803	13 Sagittarii μ	4 5		18	5	37 75	111	5	27 7	4	0 61	
	804	15 Sagittarii	5 0	1	18	7	6 02	110	45	54 7	1	0 62	
	805	8461 Taylor	6 1	1	18	14	24 47	134	10	24 8	1	0 62	

777 —α Herculis Var 1 —Changes irregularly between 3rd and 4th magnitudes
786 —789 —791 —795 —799 —800 —801 —Comparison stars for Donati s Comet of 1858
802 —T Herculis Var 4 —Period 165 days —Range 7 5 to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
771	16232 O A S	+ 3 5449	+ 0 0093		+ 5 699	− 0 498		
772	16233 O A S	+ 3 5486	+ 0 0093		+ 5 698	− 0 498		
773		+ 3 5380	+ 0 0091		+ 5 590	− 0 498		
774	22 Ursæ Minoris ε	+ 6 4245	+ 0 3038	+ 0 009	+ 5 188	+ 0 903	− 0 01	5780
775	35 Ophiuchi η	+ 3 4325	+ 0 0074	+ 0 001	+ 4 972	− 0 487	− 0 12	5781
776		+ 4 1956	+ 0 0148		+ 4 704	− 0 597		
777	64 Herculis α Var 1	+ 2 7338	+ 0 0035	− 0 003	+ 4 473	− 0 391	− 0 04	5821
778		+ 3 9540	+ 0 0113		+ 4 424	− 0 565		
779		+ 4 1875	+ 0 0132		+ 4 173	− 0 599		
780	8017 Taylor	+ 3 6761	+ 0 0080		+ 4 053	− 0 527		5846
781	42 Ophiuchi θ	+ 3 6788	+ 0 0080	− 0 003	+ 4 028	− 0 528	− 0 02	5851
782	44 Ophiuchi b	+ 3 6587	+ 0 0073	− 0 002	+ 3 649	− 0 527	+ 0 12	5876
783	δ Aræ	+ 5 4035	+ 0 0269	− 0 009	+ 3 584	− 0 778	+ 0 09	5877
784		+ 4 1997	+ 0 0109		+ 3 364	− 0 605		
785		+ 4 2118	+ 0 0110		+ 3 364	− 0 607		
786		+ 4 0077	+ 0 0079		+ 2 755	− 0 580		
787	55 Ophiuchi α	+ 2 7745	+ 0 0030	+ 0 004	+ 2 737	− 0 402	+ 0 20	5941
788		+ 4 2215	+ 0 0091		+ 2 671	− 0 611		
789		+ 4 0465	+ 0 0069		+ 2 221	− 0 587		
790		+ 4 0860	+ 0 0061		+ 1 811	− 0 594		
791		+ 4 0846	+ 0 0060		+ 1 771	− 0 594		
792	86 Herculis μ	+ 2 3694	+ 0 0025	− 0 026	+ 1 649	− 0 346	+ 0 74	6021
793	31 Draconis ψ¹ (1st)	− 1 0861	+ 0 0155	− 0 002	+ 1 367	+ 0 157	+ 0 26	6047
794		+ 4 1446	+ 0 0049		+ 1 308	− 0 604		
795	7504 Lacaille	+ 4 1578	+ 0 0042		+ 1 002	− 0 606		
796		+ 4 2267	+ 0 0042		+ 0 838	− 0 616		
797	7518 Lacaille	+ 5 3142	+ 0 0052		+ 0 637	− 0 775		
798	33 Draconis γ	+ 1 3915	+ 0 0030	0 000	+ 0 573	− 0 203	+ 0 04	6091
799	8355 Taylor	+ 4 3375	+ 0 0024	− 0 006	+ 0 263	− 0 632	+ 0 12	6112
800		+ 4 2644	+ 0 0011		− 0 107	− 0 622		
801		+ 4 2650	+ 0 0007		− 0 247	− 0 622		
802	T Herculis Var 4	+ 2 2688	+ 0 0021		− 0 346	− 0 331		
803	13 Sagittarii μ	+ 3 5875	+ 0 0009	− 0 004	− 0 492	− 0 523	+ 0 01	6168
804	15 Sagittarii	+ 3 5788	+ 0 0008	− 0 006	− 0 621	− 0 522	+ 0 02	6179
805	8461 Taylor	+ 4 3684	− 0 0028		− 1 260	− 0 635		6228

783—799 —Proper Motions adopted from *Stone's Catalogue*
804 —Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 *January* 1*st*,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
806	23 Ursæ Minoris δ	4 5		18	16	13 39	3	23	46 6	5	0 39
807	21 Sagittarii	5 0	1	18	17	14 94	110	36	40 7	1	0 62
808	δ² Telescopii	6 5	2	18	21	58 19	135	50	46 0	2	0 58
809		9 0	1	18	22	51 47	135	15	54 9	1	0 56
810	θ Coronæ Australis	6 0	1	18	23	47 14	132	24	22 3	1	0 63
811	3 Lyræ α (*Vega*)	1 0		18	32	19 97	51	20	29 2	4	0 61
812	R Scuti Var 1	6 0	1	18	40	13 20	95	50	53 3	1	0 64
813	7872 Lacaille	6 0	1	18	42	20 14	136	45	1 7	1	0 63
814	7878 Lacaille	7 0	1	18	42	53 19	136	44	39 6	1	0 63
815	10 Lyræ β Var 1	4 0		18	45	3 41	56	47	36 5	3	0 66
816		9 7	1	18	46	54 04	137	44	56 1	1	0 65
817	37 Sagittarii ξ²	4 0		18	49	36 78	111	16	55 7	1	0 54
818	13 Lyræ Var 2	4 3		18	51	11 38	46	13	54 3	1	0 61
819		7 9	2	18	54	10 43	122	56	13 2	2	0 60
820		10 0	2	18	57	17 42	111	21	8 9	2	0 63
821	17 Aquilæ ζ	3 3		18	59	9 45	76	20	11 7	7	0 66
822		9 5		19	0	51 71	82	1	34 1	1	0 59
823	41 Sagittarii π	4 5		19	1	40 55	111	14	12 3	1	0 54
824		9 0	1	19	3	6 08	139	22	42 7	1	0 65
825		8 0	2	19	3	13 49	122	51	6 1	2	0 56
826	T Sagittarii Var 3	8 0	4	19	8	23 18	107	12	22 8	4	0 61
827	R Sagittarii Var 1	10 0	1	19	8	42 57	109	32	38 4	1	0 65
828		9 5	1	19	9	6 37	109	32	47 9	1	0 64
829	43 Sagittarii *d*	5 0	1	19	9	40 56	109	11	30 8	1	0 62
830		8 1	1	19	10	0 19	107	9	40 9	1	0 70
831	25 Aquilæ ω	5 7		19	11	25 88	78	38	51 0	4	0 64
832	44 Sagittarii ρ¹	4 5		19	13	46 80	108	6	1 0	1	0 62
833		8 2	3	19	16	34 39	129	52	46 6	3	0 69
834	30 Aquilæ δ	3 5		19	18	38 37	87	9	14 5	7	0 65
835	52 Sagittarii *h*	5 0		19	28	25 64	115	10	49 9	5	0 65
836	8173 Lacaille	8 8	1	19	31	36 73	143	15	31 5	1	0 64
837	R Cygni Var 3	9 7	2	19	33	12 30	40	4	50 7	2	0 64
838		9 0	1	19	34	23 47	127	17	3 4	1	0 65
839	50 Aquilæ γ	3 0		19	39	47 49	79	42	57 4	3	0 65
840	S Vulpeculæ Var 3	9 6	1	19	42	49 26	63	3	1 8	2	0 64

810 —813 —814 —Comparison stars for Donati's Comet of 1858
812 —R Scuti Var 1 —Period 71 days —Range, 5th to 8th magnitude
815 —β Lyræ Var 1 —Period 12 91 days —Range 3 5 to 4 5 magnitude
818 —13 Lyræ Var 2 —Period 46 days —Range 4 2 to 4 6 magnitude
819 —825 —Comparison stars for Diana in 1864
820 —Observed by mistake for Eunomia
826 —T Sagittarii Var 3 —Period 381 days —Range 7 5 magnitude to invisibility
827 —R Sagittarii Var 1 —Period 270 days —Range 7th magnitude to invisibility
[illegible] Var 3 —Period 425 days —Range 7th [illegible]

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
806	23 Ursæ Minoris δ	− 19 3984	− 0 4743	+ 0 048	− 1 418	+ 2 823	− 0 03	6281
807	21 Sagittarii	+ 3 5735	− 0 0004	− 0 003	− 1 508	− 0 519	+ 0 02	6247
808	δ^2 Telescopii	+ 4 4429	− 0 0055	− 0 003	− 1 920	− 0 643	+ 0 05	6282
809		+ 4 4148	− 0 0059		− 1 997	− 0 640		
810	θ Coronæ Australis	+ 4 2866	− 0 0049	0 000	− 2 078	− 0 620	+ 0 03	6296
811	3 Lyræ α (*Vega*)	+ 2 0130	+ 0 0016	+ 0 017	− 2 820	− 0 290	− 0 28	6355
812	R Scuti Var 1	+ 3 2069	− 0 0011		− 3 501	− 0 458		
813	7872 Lacaille	+ 4 4693	− 0 0122		− 3 683	− 0 639		
814	7878 Lacaille	+ 4 4684	− 0 0124		− 3 731	− 0 638		
815	10 Lyræ β Var 1	+ 2 2137	+ 0 0015	− 0 002	− 3 917	− 0 315	+ 0 03	6429
816		+ 4 5132	− 0 0142		− 4 076	− 0 643		
817	37 Sagittarii ξ^2	+ 3 5806	− 0 0043	− 0 001	− 4 308	− 0 508	+ 0 03	6461
818	13 Lyræ Var 2	+ 1 8232	+ 0 0008	− 0 001	− 4 442	− 0 257	0 00	6475
819		+ 3 9142	− 0 0085		− 4 696	− 0 553		
820		+ 3 5786	− 0 0053		− 4 961	− 0 503		
821	17 Aquilæ ζ	+ 2 7578	+ 0 0003	− 0 006	− 5 119	− 0 387	+ 0 07	6528
822		+ 2 8914	− 0 0004		− 5 263	− 0 405		
823	41 Sagittarii π	+ 3 5730	− 0 0057	− 0 004	− 5 332	− 0 500	+ 0 03	6548
824		+ 4 5721	− 0 0208		− 5 453	− 0 640		
825		+ 3 9028	− 0 0100		− 5 463	− 0 546		
826	T Sagittarii Var 3	+ 3 4678	− 0 0054		− 5 896	− 0 480		
827	R Sagittarii Var 1	+ 3 5256	− 0 0060		− 5 923	− 0 488		
828		+ 3 5254	− 0 0061		− 5 956	− 0 488		
829	43 Sagittarii *d*	+ 3 5161	− 0 0061	− 0 004	− 6 004	− 0 486	− 0 01	6584
830		+ 3 4659	− 0 0055		− 6 030	− 0 479		
831	25 Aquilæ ω	+ 2 8165	− 0 0003	− 0 003	− 6 150	− 0 388	− 0 02	6595
832	44 Sagittarii ρ^1	+ 3 4867	− 0 0061	− 0 003	− 6 345	− 0 480	− 0 03	6619
833		+ 4 1274	− 0 0164		− 6 576	− 0 565		
834	30 Aquilæ δ	+ 3 0094	− 0 0018	+ 0 014	− 6 748	− 0 410	− 0 10	6646
835	52 Sagittarii h^2	+ 3 6543	− 0 0102	+ 0 002	− 7 548	− 0 490	− 0 02	6706
836	8173 Lacaille	+ 3 7219	− 0 0358		− 7 805	− 0 631		
837	R Cygni Var 3	+ 1 6129	− 0 0015		− 7 933	− 0 213		
838		+ 4 0048	− 0 0179		− 8 029	− 0 533		
839	50 Aquilæ γ	+ 2 8520	− 0 0011	+ 0 001	− 8 459	− 0 373	0 00	6772
840	S Vulpeculæ Var 3	+ 2 4596	+ 0 0011		− 8 697	− 0 319		

808—810—Proper Motions adopted from *Stone's Catalogue*
818—Proper Motions adopted from *Greenwich Catalogue*,

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
841	53 Aquilæ α (*Altair*)	1 8		19	44	8 79	81	29	18 2	2	0 65
842	χ Cygni Var 2	6 0	2	19	45	20 36	57	25	43 0	2	0 60
843	55 Aquilæ η Var 1	4 0		19	45	32 45	89	20	27 9	1	0 59
844	60 Aquilæ β	4 5		19	48	27 84	83	55	50 9	4	0 66
845		8 5	1	19	49	33 81	145	56	51 6	1	0 70
146		9 0	2	19	53	0 36	147	10	53 2	2	0 63
847		9 1	1	19	55	35 36	151	51	39 1	1	0 75
848	9208 Taylor	5 3	2	19	55	41 75	122	26	6 0	2	0 61
849	λ Ursæ Minoris	6 3		20	0	7 03	1	5	54 6	4	0 42
850	20046 O A N	9 2	1	20	2	39 55	32	23	32 3	1	0 54
851	R Capricorni Var 1	9 1	1	20	3	40 42	104	40	4 6	1	0 65
852	S Aquilæ Var 4	9 1	2	20	5	21 88	74	46	56 4	2	0 67
853		9 0	1	20	7	41 31	81	22	28 8	1	0 69
854	20356 O A S	8 2	1	20	8	~~22 17~~ 21 40	110	26	8 1	1	0 75
855		7 0	1	20	~~10~~ 9	28 82	149	9	1 6	1	0 70
856	6 Capricorni α^2	3 5		20	10	30 27	102	57	50 1	7	0 05
857	39045 Lalande	6 4	2	20	12	4 98	50	3	16 4	2	0 68
858	α Pavonis	2 0		20	14	51 99	147	10	2 1	3	0 70
859	8441 Lacaille	8 3	2	20	18	13 10	121	6	58 9	2	0 66
860	11 Capricorni ρ	5 0		20	21	5 91	108	15	38 3	7	0 66
861	39525 Lalande	7 0	1	20	24	56 21	86	2	29 2	2	0 72
862		8 3	3	20	27	13 08	121	5	54 0	3	0 69
863		8 9	1	20	27	50 62	143	16	24 8	1	0 63
864	24 Cephei Hev Var	8 9	1	20	28	6 07	1	17	6 8	2	0 19
865	143 R P L	6 7		20	29	42 23	5	18	29 0	2	0 45
866		8 5	1	20	29	45 35	143	52	1 4	1	0 72
867		8 0	2	20	30	52 41	149	55	23 2	2	0 76
868	14 Capricorni τ^2	5 7		20	31	39 85	105	25	45 7	1	0 62
869	S Capricorni Var 2	9 0	2	20	33	57 28	109	32	21 9	2	0 64
870		8 7	1	20	36	32 04	148	23	33 4	1	0 76
871	50 Cygni α (*Deneb*)	1 7		20	36	47 68	45	12	16 4	5	0 69
872		9 0	1	20	38	8 49	143	3	17 3	1	0 65
873	2 Aquarii ε	4 5		20	40	18 60	99	59	29 5	2	0 62
874		10 5	1	20	41	8 55	105	18	21 6	1	0 64
875	T Aquarii Var 4	8 7	4	20	42	45 58	95	38	58 1	4	0 68

842 —χ Cygni Var 2 —Period 406 days —Range 4th magnitude to invisibility
843 —η Aquilæ Var 1 —Period 7 176 days —Range 3 5 to 4 7 magnitude
850 —Comparison star *n f* S Cygni Var 4
851 —R Capricorni Var 1 —Period 347 days —Range 9th magnitude to invisibility
852 —S Aquilæ Var 4 —Period 147 days —Range 9th to 11 5 magnitude
854 —Comparison star for Parthenope in 1862
864 —R Ursæ Minoris Var 1 —Variable from 5th to 11th magnitude in many years
865 —3128 Carrington
866 —S Capricorni Var 2 —Supposed to change from 9th to 11th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
841	53 Aquilæ α (*Altair*)	+ 2 8922	– 0 0014	+ 0 036	– 8 804	– 0 374	– 0 38	6802
842	χ Cygni Var 2	+ 2 3067	+ 0 0013		– 8 896	– 0 297		
843	55 Aquilæ η Var 1	+ 3 0583	– 0 0031	– 0 001	– 8 912	– 0 396	+ 0 04	6811
844	60 Aquilæ β	+ 2 9455	– 0 0020	+ 0 002	– 9 154	– 0 378	+ 0 47	6833
845		+ 4 8285	– 0 0479		– 9 227	– 0 621		
846		+ 4 8983	– 0 0523		– 9 492	– 0 626		
847		+ 5 2607	– 0 0700		– 9 691	– 0 668		
848	9208 Taylor	+ 3 8157	– 0 0175		– 9 701	– 0 483		6877
849	λ Ursæ Minoris	– 57 2949	– 29 8376	– 0 035	– 10 037	+ 7 238	– 0 01	6999
850	20046 O A N	+ 1 2594	– 0 0074		– 10 228	– 0 154		
851	R Capricorni Var 1	+ 3 3723	– 0 0087		– 10 305	– 0 418		
852	S Aquilæ Var 4	+ 2 7615	– 0 0004		– 10 431	– 0 340		
853		+ 2 8999	– 0 0017		– 10 604	– 0 354		
854	20356 O A S	+ 3 4941	– 0 0116		– 10 653	– 0 427		
855		+ 4 9574	– 0 0649		– 10 811	– 0 604		
856	6 Capricorni α	+ 3 3312	– 0 0084	+ 0 001	– 10 814	– 0 403	0 00	6974
857	39045 Lalande	+ 2 1327	+ 0 0017		– 10 929	– 0 256		6986
858	α Pavonis	+ 4 7954	– 0 0594	0 000	– 11 133	– 0 574	+ 0 10	7004
859	8441 Lacaille	+ 3 7367	– 0 0192		– 11 375	– 0 444		
860	11 Capricorni ρ	+ 3 4322	– 0 0115	– 0 006	– 11 582	– 0 403	+ 0 01	7042
861	39525 Lalande	+ 2 9974	– 0 0031		– 11 855	– 0 347		
862		+ 3 7178	– 0 0200		– 12 015	– 0 429		
863		+ 4 5039	– 0 0515		– 12 059	– 0 520		
864	24 Cephei Hev Var	– 44 4910	– 23 9972		– 12 076	+ 5 186		7184
865	143 R P L	– 8 3554	– 1 2622		– 12 188	+ 0 973		
866		+ 4 5261	– 0 0535		– 12 192	– 0 519		
867		+ 4 8982	– 0 0742		– 12 270	– 0 560		
868	14 Capricorni τ^2	+ 3 3631	– 0 0105	– 0 002	– 12 325	– 0 382	+ 0 03	7127
869	S Capricorni Var 2	+ 3 4434	– 0 0128		– 12 481	– 0 385		
870		+ 4 7574	– 0 0694		– 12 658	– 0 533		
871	50 Cygni α (*Deneb*)	+ 2 0433	+ 0 0021	– 0 002	– 12 675	– 0 226	0 00	7171
872		+ 4 4431	– 0 0530		– 12 766	– 0 495		
873	2 Aquarii ε	+ 3 2523	– 0 0084	– 0 001	– 12 911	– 0 357	+ 0 01	7196
874		+ 3 3512	– 0 0109		– 12 967	– 0 367		
875	T Aquarii Var 4	+ 3 1724	– 0 0066		– 13 076	– 0 345		

858 —Proper Motions adopted from "*Stone's Catalogue*"

Mean Positions of Stars for 1864 *January 1st,*

	Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
					h	*m*	*s*					
	876	8571 Lacaille	8 0	2	20	42	53 12	150	12	58 0	2	0 73
	877	9633 Taylor	7 4	2	20	44	34 19	101	56	47 2	2	0 69
	878	6 Aquarii *μ*	5 0		20	45	19 11	99	29	29 2	2	0 70
47	879		8 8	1	20	~~48~~	36 01	149	1	17 4	1	0 65
	880	32 Vulpeculæ	5 0		20	48	45 82	62	27	29 5	9	0 70
	881		9 0	1	20	50	40 81	148	45	51 9	1	0 70
	882	8635 Lacaille	7 4	3	20	52	18 83	126	35	2 8	3	0 71
8	883	23 Capricorni *θ*	5 0		20	55	18 93	107	46	16 1	1	0 77
	884	R Vulpeculæ Var 2	8 5	2	20	58	20 25	66	43	3 3	2	0 67
	885		9 2	1	20	58	35 34	148	52	36 7	1	0 75
	886	9772 Taylor	8 1	2	21	0	27 27	145	7	16 6	2	0 72
	887	61 Cygni (1*st*)	5 3		21	0	48 17	51	55	4 3	3	0 67
	888	13 Aquarii *ν*	4 7		21	2	10 85	101	55	14 0	2	0 70
	889		9 6	2	21	2	54 46	145	6	44 7	2	0 73
	890	8712 Lacaille	8 5	1	21	4	11 07	146	48	32 8	1	0 74
	891	64 Cygni 3	3 5		21	7	8 89	60	19	47 3	9	0 69
	892	T Capricorni Var 3	9 1	3	21	14	25 65	105	40	11 5	3	0 67
	893	5 Cephei *α* (*Alderamin*)	2 7		21	15	19 93	27	59	24 9	3	0 69
	894	9931 Taylor	6 7	3	21	18	41 84	142	53	23 1	3	0 73
	895		8 2	1	21	20	5 57	150	47	50 8	1	0 77
	896	22 Aquarii *β*	3 0		21	24	23 81	96	10	4 8	14	0 69
	897		7 9	1	21	25	49 17	140	23	25 6	1	0 70
	898	8 Cephei *β*	3 3		21	26	53 87	20	2	9 1	3	0 69
	899		9 5	1	21	27	4 39	132	38	18 9	1	0 74
	900		9 3	1	21	28	50 12	134	4	22 2	1	0 74
	901		9 0	2	21	29	29 23	134	2	30 3	2	0 76
	902		9 0	1	21	29	53 40	98	25	25 9	1	0 77
	903	23 Aquarii *ξ*	5 3		21	30	30 57	98	27	44 8	3	0 68
	904	10032 Taylor	6 4	1	21	30	41 50	142	58	15 0	1	0 68
	905	10065 Taylor	6 4	1	21	34	27 98	145	7	8 3	1	0 70
	906		9 1	2	21	34	41 54	134	0	27 2	2	0 74
	907	8 Pegasi *ε*	2 5		21	37	30 34	80	44	50 1	10	0 74
	908	10126 Taylor	7 0	1	21	40	59 24	137	14	24 3	1	0 74
	909	XXI 975 W B E	9 0	3	21	41	9 82	97	19	45 6	3	0 65
	910		9 1	2	21	42	52 93	132	31	26 0	2	0 75

884 —R Vulpeculæ Var 2 —Period 138 days —Range 8th to 13th magnitude
892 —T Capricorni Var 3 —Period 269 days —Range 9th magnitude to invisibility
909 —Comparison star for Ariadne in 1864

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	*s*	*s*				
876	8571 Lacaille	+ 4 8426	– 0 0787		– 13 084	– 0 529		
877	9633 Taylor	+ 3 2848	– 0 0093		– 13 195	– 0 355		7232
878	6 Aquarii μ	+ 3 2399	– 0 0083	0 000	– 13 244	– 0 349	+ 0 04	7239
879		+ 4 7231	– 0 0745		– 13 458	– 0 505		
880	32 Vulpeculæ	+ 2 5554	+ 0 0026	– 0 002	– 13 469	– 0 270	0 00	7256
881		+ 4 6931	– 0 0739		– 13 593	– 0 497		
882	8635 Lacaille	+ 3 7969	– 0 0272		– 13 697	– 0 398		
883	23 Capricorni θ	+ 3 3771	– 0 0128	+ 0 004	– 14 077	– 0 345	+ 0 05	7322
884	R Vulpeculæ Var 2	+ 2 6623	+ 0 0022		– 14 078	– 0 271		
885		+ 4 6476	– 0 0757		– 14 093	– 0 476		
886	9772 Taylor	+ 4 4256	– 0 0624		– 14 209	– 0 449		
887	61 Cygni (1*st*)	+ 2 3337	+ 0 0044	+ 0 339	– 14 234	– 0 233	– 3 22	7336
888	13 Aquarii ν	+ 3 2698	– 0 0098	+ 0 001	– 14 316	– 0 328	+ 0 01	7344
889		+ 4 4093	– 0 0626		– 14 360	– 0 443		
890	8712 Lacaille	+ 4 4907	– 0 0685		– 14 438	– 0 448		
891	64 Cygni ζ	+ 2 5505	+ 0 0038	– 0 003	– 14 617	– 0 248	+ 0 07	7368
892	T Capricorni Var 3	+ 3 3201	– 0 0120		– 15 045	– 0 314		
893	5 Cephei α (*Alderamin*)	+ 1 4162	– 0 0071	+ 0 021	– 15 098	– 0 130	– 0 01	7416
894	9931 Taylor	+ 4 2157	– 0 0575		– 15 290	– 0 391		7448
895		+ 4 6091	– 0 0871		– 15 368	– 0 425		
896	22 Aquarii β	+ 3 1627	– 00071	– 0 001	– 15 608	– 0 282	0 00	7478
897		+ 4 0788	– 0 0516		– 15 685	– 0 363		
898	8 Cephei β	+ 0 8010	– 0 0345	0 000	– 15 744	– 0 065	+ 0 04	7493
899		+ 3 8340	– 0 0371		– 15 754	– 0 339		
900		+ 3 8653	– 0 0394		– 15 849	– 0 338		
901		+ 3 8615	– 0 0394		– 15 884	– 0 337		
902		+ 3 1927	– 0 0082		– 15 905	– 0 276		
903	23 Aquarii ξ	+ 3 1929	– 0 0083	+ 0 004	– 15 937	– 0 276	+ 0 04	7514
904	10032 Taylor	+ 4 1468	– 0 0584		– 15 948	– 0 359		7513
905	10065 Taylor	+ 4 2097	– 0 0649		– 16 146	– 0 357		7540
906		+ 3 8372	– 0 0394		– 16 158	– 0 324		
907	8 Pegasi ε	+ 2 9452	– 0 0005	+ 0 003	– 16 302	– 0 242	0 00	7561
908	10126 Taylor	+ 3 8963	– 0 0454		– 16 478	– 0 317		7591
909	XXI 975 W B E	+ 3 1700	– 0 0076		– 16 486	– 0 256		
910		+ 3 7627	– 0 0372		– 16 571	– 0 302		

Mean Positions of Stars for 1864 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension h	m	s	Mean Polar Distance °	′	″	Observations	Fraction of Year
911	16 Pegasi	5 5		21	46	52 49	64	42	50 7	9	0 72
912	8958 Lacaille	7 6	2	21	47	12 80	135	53	19 5	2	0 75
913		9 3	2	21	47	34 84	133	12	30 1	2	0 75
914		9 7	1	21	52	46 60	136	38	12 8	1	0 74
915	κ Indi	6 5	1	21	56	15 98	150	17	30 7	1	0 85
916	31 Aquarii o	4 7		21	56	16 50	92	48	38 9	1	0 68
917	32 Aquarii	5 6	3	21	57	47 58	91	33	47 1	3	0 74
918		7 9	2	21	58	11 91	136	2	33 8	2	0 75
919	34 Aquarii α	3 0		21	58	47 79	90	58	46 3	10	0 73
920	α Gruis	2 0		21	59	38 79	137	37	5 5	1	0 72
921		9 5	1	22	3	19 55	101	8	54 2	1	0 74
922	XXII 98 W B E	8 0	3	22	6	21 85	90	25	47 5	3	0 68
923		8 0	1	22	9	5 50	98	22	7 1	2	0 78
924		9 0	1	22	9	7 81	146	27	~~28~~ 18 2	1	0 77
925	43 Aquarii θ	4 7		22	9	39 29	98	27	33 9	10	0 77
926	48 Aqurii γ	3 7		22	14	37 87	92	4	18 8	3	0 82
927		8 9	3	22	15	20 86	82	47	26 1	3	0 70
928		9 4	2	22	16	51 21	135	58	25 2	2	0 75
929	55 Aquarii 3	6 1	3	22	21	49 60	90	42	52 0	3	0 72
930	57 Aquarii σ	5 0		22	23	26 76	101	22	23 2	1	0 70
931	150 B P L	5 5		22	23	38 63	4	34	42 1	7	0 29
932	27 Cephei δ Var 1	4 0		22	24	7 58	32	16	51 0	1	0 76
933		9 2	1	22	24	17 62	135	42	9 4	1	0 74
934		9 7	1	22	24	39 74	146	50	35 2	1	0 77
935		8 2	1	22	25	51 88	141	30	13 4	1	0 75
936	62 Aquarii η	4 0		22	28	21 97	90	49	4 0	0	0 77
937	9188 Lacaille	7 0	2	22	29	53 53	130	33	43 2	2	0 83
938	10477 Taylor	6 2	2	22	32	7 25	148	7	50 5	2	0 77
939	42 Pegasi 3	3 5		22	34	40 74	79	52	39 9	5	0 75
940		8 8	2	22	36	30 50	130	26	56 8	2	0 81
941	9226 Lacaille	6 7	3	22	37	39 08	145	46	40 0	3	0 78
942	XXII 844 W B E	9 0	2	22	40	34 14	87	48	41 1	2	0 76
5191 943		8 7	2	22	40	~~51 81~~	142	38	2 6	2	0 84
944		8 0	2	22	44	41 47	130	1	17 2	2	0 81
945		10 2	1	22	44	43 81	145	33	2 5	1	0 77

917 —922 —Comparison stars for Encke s Comet in 1862
931 —3820 Groombridge
932,—δ Cephei Var 2 —Period 5 366 days —Range, 3 7 to 4 8 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
911	16 Pegasi	+ 2 7254	+ 0 0052	+ 0 001	− 16 766	− 0 210	+ 0 01	7627
912	8958 Lacaille	+ 3 8272	− 0 0428		− 16 782	− 0 299		
913		+ 3 3750	− 0 0383		− 16 800	− 0 292		
914		+ 3 8181	− 0 0441		− 17 043	− 0 286		
915	κ Indi	− 4 2766	− 0 0845		− 17 208	− 0 314		7669
916	31 Aquarii o	+ 3 1058	− 0 0051	+ 0 001	− 17 203	− 0 226	+ 0 01	7672
917	32 Aquarii	+ 3 0906	− 0 0045	+ 0 003	− 17 271	− 0 222	+ 0 03	7685
918		+ 3 7748	− 0 0430		− 17 290	− 0 272		
919	34 Aquarii α	+ 3 0836	− 0 0041	− 0 003	− 17 316	− 0 219	+ 0 02	7688
920	α Gruis	+ 3 8065	− 0 0457	+ 0 011	− 17 353	− 0 270	+ 0 15	7692
921		+ 3 9005	− 0 0093		− 17 512	− 0 219		
922	XXII 98 W B E	+ 3 0768	− 0 0037		− 17 640	− 0 205		
923		+ 3 1636	− 0 0077		− 17 752	− 0 207		
924		+ 4 0100	− 0 0681		− 17 754	− 0 264		
925	43 Aquarii θ	+ 3 1640	− 0 0075	+ 0 006	− 17 775	− 0 205	+ 0 03	7773
926	48 Aquarii γ	+ 3 0935	− 0 0013	+ 0 007	− 17 972	− 0 192	− 0 02	7795
927		+ 2 9975	0 0000		− 18 000	− 0 185		
928		+ 3 6738	− 0 0422		− 18 058	− 0 225		
929	55 Aquarii ζ	+ 3 0790	− 0 0033	+ 0 009	− 18 248	− 0 178	− 0 03	7832
930	57 Aquarii σ	+ 3 1821	− 0 0088	− 0 004	− 18 301	− 0 182	− 0 05	7840
-11704- 931	150 R I L	− 3 7197	− ~~1 1361~~	+ 0 048	− 18 308	+ 0 231	− 0 05	7851
932	27 Cephei δ Vii 1	+ 2 9123	+ 0 0165	+ 0 002	− 18 326	− 0 123	+ 0 02	7848
933		+ 3 6278	− 0 0412		− 18 332	− 0 206		
934		+ 3 8990	− 0 0676		− 18 345	− 0 221		
935		+ 3 7133	− 0 0597		− 18 387	− 0 210		
936	62 Aquarii η	+ 3 0794	− 0 0031	+ 0 003	− 18 474	− 0 166	+ 0 06	7868
937	9188 Lacaille	+ 3 5105	− 0 0333		− 18 525	− 0 188		
938	10177 Taylor	+ 3 8766	− 0 0708		− 18 599	− 0 203		7889
939	42 Pegasi ζ	+ 2 9851	+ 0 0023	+ 0 001	− 18 682	− 0 149	0 00	7905
940		+ 3 1782	− 0 0327		− 18 739	− 0 173		
941	9226 Lacaille	+ 3 7632	− 0 0622		− 18 774	− 0 185		
942	XXII 844 W B F	+ 3 0547	− 0 0012		− 18 864	− 0 143		
943		+ 3 6646	− 0 0534		− 18 872	− 0 162		
944		+ 3 1344	− 0 0317		− 18 982	− 0 154		
945		+ 3 7007	− 0 0604		− 18 983	− 0 166		

916 —Proper Motions from Mr Stone s list *Memoirs R A S* ' Vol 33
917 —Proper Motions adopted from *Greenwich Catalogue*
920 —Proper Motions adopted from ' *Stone s Catalogue*

Mean Positions of Stars for 1864 *January* 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
946		8 2	1	22	44	50 43	118	34	33 0	2	0 73
947		9 0	1	22	48 9	3 87	152	35	12 3	1	0 85
948		9 0	2	22	49	13 15	135	27	53 3	2	0 84
949	S Aquarii Var 2			22	49	49 09	111	4	~~1 0~~	1	0 72
950	2 Piscis Aus α (*Fomalhaut*)	1 3		22	50	[illegible]	120	20	32 8	7	0 82
951		7 3	2	22	50	19 40	111	0	5 7	2	0 73
952		8 9	1	22	51	26 12	151	33	15 5	2	0 81
953	9353 Lacaille	5 9	1	22	56	36 00	144	41	38 0	1	0 76
954		8 9	1	22	57	11 27	119	37	59 8	1	0 82
955	53 Pegasi β Var 1	2 3		22	57	11 01	62	39	16 9	1	0 76
956	54 Pegasi α (*Markab*)	2 0		22	57	59 18	75	31	31 6	4	0 77
957		9 1	2	22	59	20 02	150	22	5 6	2	0 83
958	9372 Lacaille	8 0	2	23	0	22 71	150	28	12 7	2	0 80
959	9377 Lacaille	6 6	2	23	2	12 35	151	18	1 3	2	0 74
960		9 5	2	23	4	18 63	130	49	15 1	2	0 77
961	9394 Lacaille	8 1	3	23	5	9 76	115	50	37 8	3	0 82
962	6 Piscium γ	4 3		23	10	6 89	87	27	37 5	4	0 75
963		9 8	1	23	11	5 52	151	15	41 8	1	0 81
964		9 3	1	23	11	6 18	127	25	34 9	1	0 82
965		8 6	1	23	11	18 58	136	54	21 5	1	0 86
966		8 0	1	23	12	7 56	137	3	51 3	1	0 72
967		8 3	2	23	12	13 07	127	24	50 8	2	0 80
968	96 Aquarii	5 5	1	23	12	20 02	95	52	2 5	1	0 69
969		8 5	4	23	15	17 25	130	46	15 1	4	0 82
970		9 8	1	23	15	41 65	130	39	46 9	1	0 81
971		10 0		23	19	42 21	151	38	3 9	1	0 82
972	8 Piscium κ	5 5		23	19	57 63	89	29	20 0	8	0 79
973		8 7	2	23	23	37 19	148	57	35 6	2	0 78
974		9 9	2	23	25	29 85	129	51	59 5	2	0 81
975	10801 Taylor	6 7	1	23	27	29 64	147	31	36 0	1	0 76
976		8 4	2	23	27	45 78	118	14	46 3	2	0 76
977	[illegible]	5 7		23	27	49 90	3	26	34 6	5	0 19
978		8 1	2	23	29	49 41	118	55	17 9	2	0 83
979		8 3	1	23	30	24 69	148	56	42 9	1	0 82
980	17 Piscium ι	4 5		23	32	57 31	85	6	38 9	7	0 78

949 —S Aquarii Var 2 Period 279 days —Range 8th magnitude to invisibility
955 —β Pegasi Var 1 —(*Scheat*) —Period about 6 weeks —Range 2 0 to 2 5 magnitude
977 —4101 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
916		+ 3 7769	− 0 0697		− 18 987	− 0 169		
947		+ 3 8680	− 0 0851		− 19 075	− 0 166		
948		+ 3 4851	− 0 0388		− 19 106	− 0 147		
949	S Aquarii Var 2	+ 3 2271	− 0 0140		− 19 122	− 0 134		
950	2 Piscis Australis α	+ 3 3069	− 0 0210	+ 0 022	− 19 131	− 0 135	+ 0 18	7992
951		+ 3 2257	− 0 0140		− 19 136	− 0 133		
952		+ 3 7995	− 0 0796		− 19 164	− 0 155		
953	9353 Lacaille	+ 3 5878	− 0 0559		− 19 293	− 0 135		8029
954		+ 3 6897	− 0 0705		− 19 307	− 0 138		
955	53 Pegasi β Var 1	+ 2 8850	+ 0 0117	+ 0 014	− 19 307	− 0 106	− 0 15	8032
956	54 Pegasi α (*Markab*)	+ 2 9798	+ 0 0056	+ 0 003	− 19 325	− 0 107	+ 0 02	8034
957		+ 3 6871	− 0 0728		− 19 356	− 0 133		
958	9372 Lacaille	+ 3 6792	− 0 0727		− 19 380	− 0 130		
959	9377 Lacaille	+ 3 6814	− 0 0753		− 19 420	− 0 126		8061
960		+ 3 3499	− 0 0305		− 19 466	− 0 109		
961	9394 Lacaille	+ 3 5391	− 0 0571		− 19 483	− 0 114		
962	6 Piscium γ	+ 3 0591	+ 0 0005	+ 0 047	− 19 582	− 0 087	+ 0 01	8105
963		+ 3 5885	− 0 0721		− 19 600	− 0 103		
964		+ 3 2887	− 0 0264		− 19 600	− 0 093		
965		+ 3 3734	− 0 0382		− 19 604	− 0 098		
966		+ 3 3701	− 0 0384		− 19 619	− 0 094		
967		+ 3 2839	− 0 0263		− 19 621	− 0 087		
968	96 Aquarii	+ 3 1004	− 0 0038	+ 0 011	− 19 623	− 0 085	+ 0 01	8119
969		+ 3 2957	− 0 0296		− 19 674	− 0 085		
970		+ 3 2928	− 0 0295		− 19 681	− 0 084		
971		+ 3 5052	− 0 0703		− 19 745	− 0 081		
972	8 Piscium κ	+ 3 0699	0 0000	+ 0 005	− 19 750	− 0 069	+ 0 12	8169
973		+ 3 1232	− 0 0605		− 19 803	− 0 070		
971		+ 3 2396	− 0 0275		− 19 828	− 0 062		
975	10804 Taylor	+ 3 3696	− 0 0555		− 19 853	− 0 060		8208
976		+ 3 3749	− 0 0572		− 19 857	− 0 060		
977	158 R P L	− 0 0367	− 0 5004	+ 0 084	− 19 858	+ 0 010	− 0 01	8213
978		+ 3 3633	− 0 0583		− 19 882	− 0 055		
979		+ 3 3579	− 0 0583		− 19 888	− 0 054		
980	17 Piscium ι	+ 3 0585	+ 0 0030	+ 0 025	− 19 916	− 0 042	+ 0 45	8233

955—968—Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	*m*	*s*					
981	35 Cephei γ	3 3		23	33	47 83	13	7	37 5	3	0 80
982		9 2	1	23	34	20 29	147	27	26 3	1	0 82
983		8 0	1	23	35	11 20	148	42	58 3	1	0 86
984		9 2	2	23	36	46 75	106	2	18 8	2	0 75
985	9583 Lacaille	8 7	2	23	38	50 59	123	43	53 6	2	0 79
986		9 7	1	23	41	4 67	128	46	38 4	1	0 82
987	δ Sculptoris	4 5		23	41	50 21	118	52	56 8	11	0 82
988		8 5	1	24	41	58 37	142	4	25 9	1	0 71
989		9 4	1	23	42	41 88	150	54	3 2	1	0 85
990		9 4	2	23	47	43 66	128	50	58 4	2	0 81
991	9641 Lacaille	7 8	1	23	48	2 04	128	7	14 7	1	0 82
992		8 5	1	23	49	57 25	148	53	24 9	1	0 86
993	R Cassiopeæ Var 3	9 5	1	23	51	30 50	39	22	8 6	1	0 82
994		9 0	1	23	51	45 33	152	20	38 6	1	0 85
ω 995	28 Piscium ~~ω~~	4 0		23	52	19 68	83	53	23 5	11	0 80
996	9686 Lacaille	6 9	3	23	53	32 44	143	51	15 3	3	0 78
997		9 2	2	23	55	58 46	130	17	1 3	2	0 81
998		8 0	1	23	56	7 64	124	7	46 0	1	0 86
999	10994 Taylor	7 7	1	23	57	47 27	147	36	0 5	1	0 74
1000	9721 Lacaille	6 9		23	59	15 72	139	~~50~~	~~3 3~~	1	0 86 — 49 54 2

993 —R Cassiopeæ Var 3 —Period 426 days —Range, 5th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension: Annual Precession	In Right Ascension: Secular Variation	In Right Ascension: Proper Motion	In Polar Distance: Annual Precession	In Polar Distance: Secular Variation	In Polar Distance: Proper Motion	Number in B A C
		s	s	s				
981	35 Cephei γ	+ 2 4179	+ 0 0738	− 0 020	− 19 924	− 0 031	− 0 15	8238
982		+ 3 3061	− 0 0532		− 19 930	− 0 045		
983		+ 3 3099	− 0 0561		− 19 937	− 0 043		
984		+ 3 1109	− 0 0081		− 19 953	− 0 037		
985	9583 Lacaille	+ 3 1709	− 0 0248		− 19 970	− 0 034		
986		+ 3 1607	− 0 0244		− 19 987	− 0 029		
987	δ Sculptoris	+ 3 1304	− 0 0161	+ 0 009	− 19 992	− 0 026	+ 0 10	8275
988		+ 3 2069	− 0 0408		− 19 993	− 0 028		
989		+ 3 2533	− 0 0590		− 19 998	− 0 027		
990		+ 3 1297	− 0 0237		− 20 026	− 0 015		
991	9641 Lacaille	+ 3 1269	− 0 0230		− 20 027	− 0 016		
992		+ 3 1692	− 0 0512		− 20 036	− 0 011		
993	R Cassiopeæ Var 3	+ 3 0117	+ 0 0364		− 20 041	− 0 007		
994		+ 3 1639	− 0 0590		− 20 042	− 0 008		
995	28 Piscium ω	+ 3 0672	+ 0 0047	+ 0 010	− 20 044	− 0 005	+ 0 13	8331
996	9686 Lacaille	+ 3 1237	− 0 0407		− 20 047	− 0 004		
997		+ 3 0920	− 0 0240		− 20 052	+ 0 001		
998		+ 3 0874	− 0 0185		− 20 052	+ 0 001		
999	10994 Taylor	+ 3 0925	− 0 0495		− 20 054	+ 0 005		
1000	9721 Lacaille	+ 3 0772	− 0 0336		− 20 055	+ 0 008		

987 —Proper Motions adopted from ' *Stone s Catalogue* '

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AUSTRALIA (*VICTORIA*)

Melbourne	Government Observatory
	R L J Ellery F R S

AUSTRALIA (*NEW SOUTH WALES*)

Sydney	Royal Society of New South Wales
	Government Observatory
	H C Russel B A
Windsor	J Tebbutt

AUSTRIA

Herény	Steinamanger — E von Gothard
Krakau	The Observatory
Kremsmunster	The Observatory
O Gyalla	Dr N von Konkoly
Pola	The Observatory
Prague	The Observatory
Trieste	The Observatory
	Dr F Anton
Vienna	Imperial Academy of Sciences
	Imperial Observatory
	Prof E Weiss
	Dr F Bidschof
	Dr J Holetschek
	Dr J Palisa

BELGIUM

57 — Brussels	Royal Academy of Sciences
	Royal Observatory

BRAZIL (*SOUTH AMERICA*)

Rio Janeiro	Imperial Observatory

CAPE OF GOOD HOPE

Cape Town	Royal Observatory
	Dr Gill F R S
	W H Finlay B A

CEYLON

Colombo	Surveyor General

CHILI (*SOUTH AMERICA*)

Santiago	National Observatory

CHINA

Hong Kong	Dr W Doberck, Govt Astron

DENMARK

Copenhagen	Royal Academy of Sciences
	Royal Observatory
	Prof H C F C Schjellerup
	Prof T N Thiele
	C F Pechule

FRANCE

Bordeaux	The Observatory
Cherbourg	Societe Nationale des Sciences Naturelles
Lyons	The Observatory
Marseilles	The Observatory
	E Stephen
	— Borelly
	— Coggia
Paris	Institute of France
	Bureau des Longitudes
	Office de la Connaissance des Temps
	National Observatory
	A d Abbadie
	H A E A Faye
	Camille Flammarion
	P J C Janssen — d
	C Loewy
	~~L'Abbe Moigno~~ Died 84 July
	L Amirale F Mouchez
	L Schulhof
	F Tisserand
Toulouse	The Observatory

GERMANY

Bamberg	Dr E Hartwig
Berlin	Imperial Academy of Sciences
	Imperial Observatory
	Prof A Auvers Geh Rath
	Prof W Foerster Geh Rath
	Dr V Knorre
	Prof F Tietjen
Bonn	Royal Observatory
	Prof E Schoenfeld Geh Rath
Bothkamp	— von Bulow
Breslau	The Observatory
Carlsruhe	The Observatory
Dresden	Baron B von Engelhardt
Dusseldorf	Dr R Luther
Gotha	The Observatory
Gottingen	The Observatory
Halle	Prof O A Rosenberger
Hamburg	The Observatory
	Prof G Rumker
Kiel	The Observatory
	Prof A Krueger
	Dr E Lamp
Koenigsburg	Royal Observatory
	Prof E Luther
Leipzig	Astronomical Society
	Prof H Bruns
	Dr R Engelman
~~Leipzig~~	Dr W Feddersen
	Prof F Zollner
~~Mannheim~~	~~The Observatory~~
Munich	Royal Academy of Sciences
	Royal Observatory
	Prof H Seeliger
	Prof L Siedel
Potsdam	The Observatory
	Prof H Vogel
Strassburg	The Observatory
	Prof F A T Winnecke
Wilhelmshaven	The Observatory

GREECE

Athens	Royal Observatory

INDIA

Arconum	G K Winter
Bombay	Government Observatory
Calcutta	Surveyor General
	Meteorological Reporter to Govt
	Asiatic Society
	Geological Survey of India

INDIA —(*continued*)

Dehra Dun	Great Trigonometrical Survey of India
Madras	Christian College Library
	Civil Engineering College Library
	Government Central Museum
	Literary and Philosophical Society
	Prof C Michie Smith B Sc

ITALY

Florence	The Observatory (Arcetri)
	W Temple
Lombardy	Royal Institution
Milan	The Observatory (Brera)
	Prof G V Schiaparelli
Naples	Royal Observatory
	Prof A de Gasparis
~~Nizza~~	~~The Observatory~~
Padua	The Observatory
Palermo	The Observatory
	Prof G Cacciatore
Rome	The Observatory (Capitol)
	The Observatory (Collegio Romano)
	Prof E Millosevich
	Prof L Respighi
	Prof P Tacchini
Turin	Royal Academy of Sciences

JAPAN

Tokio	The Observatory

MAURITIUS

Pamplemousses	C Meldrum, M A F R S

NATAL (*AFRICA EAST*)

Durban	The Observatory

NETHERLANDS (*HOLLAND*)

Leyden	The Observatory
	Prof H G van de Sande Bakhuyzen
Utrecht	The Observatory
	Prof J A C Oudemans

NETHERLANDS (*INDIA*)

Batavia	Surveyor General

NORWAY

Christiania	Royal Observatory
	Prof C Fearnley
	O A L Pihl

PORTUGAL

Coimbra	The Observatory
Lisbon	Royal Observatory

RUSSIA

Dorpat	The Observatory
Helsingfors	The Observatory
Kazan	The Observatory
Kharkoff	The Observatory
Kiev	The Observatory
Moscow	The Observatory
	Prof Th Bredechin
	Dr W Ceraski
Nicolaiew	The Observatory
Odessa	The Observatory
Plonsk	Dr Jedrzejewicz
Pulkowa	Central Imperial Observatory
	Prof W Dollen Geh Rath
	Prof M Nyren
	Dr H Struve
	Prof O W von Struve Geh Rath
St Petersburg	Imperial Academy of Sciences
	Observatory of Academy of Sciences
	Dr J O Backlund
	Prof S von Glasenapp
~~Taschkent~~	~~The Observatory~~
Warsaw	The Observatory
Wilna	The Observatory

SPAIN

Madrid	Royal Observatory
San Fernando	Marine Observatory

STRAITS SETTLEMENTS

Singapore	Surveyor General

SWEDEN

Lund	The Observatory
	Dr N C Duner
	Dr F Engstrom
	Prof A Moller
Stockholm	Royal Academy of Sciences
	Prof H Gylden
Upsala	The Observatory
	Prof H Schultz
	Dr H Thalen

SWITZERLAND

Geneva	The Observatory
	Prof E Gautier
Neuchatel	The Observatory
Vevey	Prof F F E Brunnow
Zurich	The Observatory
	Prof R Wolf

UNITED KINGDOM (*ENGLAND*)

Blackheath	A M Downing M A
	E Dunkin F R S
	J Glaisher F R S
	W Thynne Lynn B A
Birkenhead	Bidston Observatory
Bocking	E B Knoble
~~Barton~~ Bristol	W F Denning
Cambridge	The Observatory
	Prof J C Adams F R S
	Prof A Cayley F R S
	J W L Glaisher F R S
	Prof ~~I~~ G G Stokes F R S
Chepstow	E J Lowe F R S
Collingwood	Lieut Col J Herschel R E F R S
Cuckfield	G Knott L L B
Durham	The Observatory
Ealing	Lieut Gen J F Tennant R E, C I E F R S
	A A Common F R S
Eastbourne	G F Chambers
Gateshead	R S Newall, F R S
Greenwich	Royal Observatory
	Sir G B Airy K C B F R S
	W H M Christie F R S Astronomer Royal
	E W Maunder
Harrow on the Hill	Lieut Col G L Tupman R M A
Ipswich	Col Tomline
Leyton	J G Barclay
Liverpool	Astronomical Society
	T E Espin
London	Royal Society
	Royal Asiatic Society
	Royal Astronomical Society
	Royal Geographical Society
	Royal Institution
	Royal Meteorological Society
	British Museum

UNITED KINGDOM (*ENGLAND*)—(*continued*)

London	Meteorological Office
	Nautical Almanac Office
	Science and Art Department South Kensington
	R Bryant B A
	Col W M Campbell R E
	Dr W De La Rue F R S
	Dr W Huggins F R S
	Cuthbert E Peeke M A
	E B Powell C S I
	R A Proctor B A
	A C Ranyard M A
	Gen R Strachey R E F R S
	Gen J T Walker R E C B F R S
Manchester	Literary and Philosophical Society
	Owens College
	Prof A Schuster F R S
	Prof Balfour Stewart F R S
Maresfield	Captain W Noble
Newcastle on Tyne	Prof A S Herschel
Oxford	Museum Observatory
	Radcliffe Observatory
	Revd C Pritchard F R S
	E J Stone M A F R S
Richmond	Kew Observatory
Rugby	Temple Observatory
Southampton	Ordnance Survey Office
Southport	J Baxendell F R S
Twickenham	Dr J R Hind F R S
Westgate on Sea	J N Lockyer F R S
Whalley	Stonyhurst College Observatory

UNITED KINGDOM (*SCOTLAND*)

Aberdeen	University Library
Dun Echt	Earl of Crawford & Balcarres F R S
	Dr Ralph Copeland
Edinburgh	Royal Observatory
	Royal Society of Edinburgh
	University Library
	Prof C P Smyth Ast Royal Scot
Glasgow	The Observatory
	Prof R Grant F R S
	Sir W Thompson F R S

UNITED KINGDOM (*IRELAND*)

Armagh	The Observatory
	Dr J L E Dreyer
Collooney	Col E H Cooper
	A Marth
Dublin	Royal Dublin Society
	Royal Observatory Dunsink

UNITED KINGDOM (*IRELAND*)—(*continued*)

Dublin	Sir R S Ball Ast Royal Ireland — F R S
	G Johnston Stoney F R S
Parson Town	The Earl of Rosse F R S

UNITED STATES (*AMERICA*)

Albany N Y	Dudley Observatory
	Prof L Boss
Alleghany Pen	The Observatory
	Prof S P Langley
Amherst Mass	Lawrence Observatory
Ann Arbor Mich	The Observatory
	J M Schaeberle
Berkeley Cal	Lick Observatory
	Prof F S Holden
Boston Mass	American Academy of Arts and Sciences
Cambridge Mass	Harvard College Observatory
	S C Chandler
	Dr B A Gould
	Prof F Pickering
Chicago Ill	Dearborn Observatory
Cincinnati Ohio	Mount Lookout Observatory
Clinton N Y	Prof C H F Peters
Glasgow Missouri	Morrison Observatory
Madison Wis	Washburn Observatory
	S W Burnham
Nashville Tenn	E E Barnard
New Haven Conn	Academy of Arts and Sciences
	Dr W Elkin
	Prof H A Newton
Phelps N Y	W R Brooks Red House Obs
Philadelphia	American Philosophical Society
Princeton N J	Prof C A Young
San Francisco Cal	Prof L Swift Warner Observatory
	Prof G Davidson
Washington	American Ephemeris Office
	National Academy of Science
	Signal Office War Department
	Smithsonian Institute
	U S Coast and Geodetic Survey Office
	U S Naval Observatory
	Commander C H Davis U S N
	Admiral S R Franklin U S N
	Prof E Frisby
	Prof Asaph Hall
	Lieut S C Lemley U S N
	Prof S Newcomb
Williamstown, Mass	Prof T H Safford